

# AIR TRANSPORTATION

THE WORLD'S FIRST AND ONLY AIR CARGO MAGAZINE

AUGUST  
1950

*In this  
Issue*

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Air Cargo

California's on the Beam

Cargo-Twin of the XC-99

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THE SKY IS  
YOUR  
MARKETPLACE  
SHIP  
YOUR  
CARGOES  
BY AIR

Vol. 17

No. 2





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## MAILBAG MEMOS

### Reaction to Editorial

About 10 days before the invasion of South Korea, Managing Editor Richard Malkin wrote an editorial, *It's Later Than You Think* (July AT), which, it appears, has met with an interesting response. Following are pertinent excerpts of letters received up to deadline:

"Your editorial, *It's Later Than You Think*, was indeed most timely and pertinent, relative to conditions here at the time of its publication and particularly in the light of subsequent developments in Korea.

"There seems to be no difference of opinion among thinking people, either within our industry, to the military services or to the general public, relative to the vital importance of air cargo transport as an essential arm to military strength. Unfortunately, however, substantial differences begin to appear when consideration is given as to what, when, and how something is to be done about it, with the result that comparatively little seems to have been accomplished or to have been planned.

"In the interests of our national military strength and security, it is hoped that efforts such as your commendable editorial will shortly resolve these differences and hesitations to the point that air cargo transport will receive their due and proper place in our military planning and procurement."

C. C. Pearson  
President  
Glenn L. Martin Company  
Baltimore, Maryland

"Not only did I find the editorial most interesting but little short of amazing in view of the developments which have taken place since it was written. I believe Mr. Malkin must possess many qualities of a seer."

Cornelius T. Morris  
Director of Public Relations  
Chase Aircraft Company, Inc.  
West Trenton, New Jersey

"*It's Later Than You Think* is one of the blindest editorials I have read in a long time. I hope it does some good. If **AIR TRANSPORTATION** is alive in the serious situation, why isn't Washington? Maybe they are reading the wrong magazine."

John Havarth  
New York, New York

"**AIR TRANSPORTATION** is to be congratulated on the progressive thinking evidenced by such an editorial."

Albert E. Snyder, Jr.  
Assistant to Director of Public Relations  
Glenn L. Martin Company  
Baltimore, Maryland

"In my opinion nothing will be done about this air cargo business until someone is willing to stop out and manufacture an airplane for that purpose exclusively, with no commitment whatever to the military, the airlines, or the CAA. These agencies then will be forced to accept the inevitable. Until then they will oppose this development in pursuit of their own selfish interests."

"I am enclosing my statement before the Senate Committee on Interstate and Foreign Commerce, 11 May 1950.

"(Statement before the Senate Committee: "It is essential in the national interest that every possible delay to the development of adequate military aircraft be eliminated now in order that we may not be handicapped by inability to take advantage of the fleeting military opportunities that are certain to arise within the first few hours of a possible war, such as was the case in the last Pearl Harbor incident when the desperate need for any aircraft at all could be satisfied only through commandeering airline equipment, an utterly impracticable procedure in modern warfare. The crux of the problem lies in the necessity for creating a paying industry out of the potential air freight business now being developed. This cannot be done, however, until the fact is recognized that air freight requires separate regulation and control on a reciprocal basis with the passenger business. As long as this basic requirement is ignored in favor of current procedures, national defense will suffer, with Pearl Harbor No. 2 just below the horizon.")

Major General Hugh J. Knorr, Ret.  
Annapolis, Maryland

(Continued on Page 26)



# AIR TRANSPORTATION

The world's first and only  
air cargo magazine

Established October, 1942

AIR TRANSPORTATION, published once each month, thoroughly covers the entire air cargo industry for the benefit of all those engaged in shipping and handling domestic and international air freight, air express, and air parcel post, as well as using the domestic and international air mail services. Included in AIR TRANSPORTATION'S wide coverage are: air shipping, cargo plane development, rates, packaging, materials handling, documentation, air cargo terminal development, insurance, routing, interline procedures, new equipment, commercial air lines, military air transport service, air freight forwarders, personnel.

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John F. Budd, Editor and Publisher

Richard Malkin, Managing Editor

K. H. Lyons, Business Manager

Frank W. Budd, Circulation Manager

Langdon P. Marvin, Jr.,

Contributing Editor

J. Prescott Blount, Contributing Editor

Dr. William L. Grossman,

Contributing Editor

Edgar H. Bauman, Field Correspondent

L. A. Goldsmith, Economic Analyst

Franklin D. Hunt, Advertising Manager

Keith H. Evans,

West Coast Advertising Representative

816 South Figueroa St.

Los Angeles 17, Calif.

Phone: VAndike 0549

Jakob Scheidegger,

European Representative

Dachsfelderstrasse 21

Basle, Switzerland

J. B. Treatsart, Ltd.,

United Kingdom Sales Representative

5 London St.

London, W. 2, England

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### COVER

An Air France transport, hauling cargoes from many quarters of the globe, wings its way over the African jungle. The French national airline currently serves 76 countries.

By  
RICHARD MALKIN

# South korea and air cargo

a  
follow-up  
to  
last month's editorial

**A**S THIS EDITORIAL is being clattered out of the typewriter, the news over the radio and in garish headlines all over the country is that the Yanks are being pushed back in South Korea. The simple fact is that the Communist troops of North Korea have us outnumbered in men and materiel. Another simple fact is that if we had received heavy equipment (tanks, etc.) in time, the North Koreans never would have gained the momentum they have at this moment.

In our editorial last month (*It's Later Than You Think*), we pointed up our disagreement with President Truman's pre-Korea contention that peace was nearer than at any time since VJ Day, and stressed our own opinion that "all current signs point to another war, whether it will be tomorrow, in five years, or ten."

A little more than a week later the North Koreans crossed the 38th Parallel and started their southward push which, many fear, was the beginning of the Third World War. At least, it is conceivable that it could be.

This magazine has emphasized in numerous articles the urgent necessity for a strong, modern airfreighter fleet. We had our opportunity to have one—five years of opportunity—but we have muffed that ball.

Does one require a crystal ball and the turban of a swami to foretell the need for transporting troops and military cargo to distant spots in hours rather than weeks? Do the lessons of the Hump and Operation Vittles count for naught? Why was the Fineletter Committee's recommendation of the "creation of an Aircraft Development Corporation whose initial and primary task would be the development of an all-cargo transport plane" disregarded?

It was the aim of the President's Air Policy Commission to see the building of an airfreighter, *built for cargo purposes from the ground up*, which, though useful to the military, would be "designed primarily with a view to economic commercial operation." But nothing happened. Instead, the transports being rushed to the Orient, even though termed cargoplanes, are basically passenger planes. You can't get away from that.

**R**EPORTING on the Berlin Airlift last year, this writer, in a Frankfurt-dated article (June, 1949, AT), stated that "the commercial air cargo future of the United States is unavoidably tied up with the entire national defense picture. A strong commercial airfreighter fleet is easily converted in time of need." That article was read into testimony before the Senate Committee on Interstate and Foreign Commerce (June 23, 1949), and is in the official record.

We are not alone in our insistence that our future as a free nation is linked with a strong air cargo transportation system. The late General H. H. Arnold said that "air power includes a nation's ability to deliver cargo, people, destructive missiles, and war-making potential through the air to a desired destination to accomplish a desired purpose."

Major General Hugh J. Knerr has said that "it is essential to our national security that prompt action be taken on developing a commercial airlift potential adequate to the emergencies of a sudden attack."

Major General William Tunner was quite blunt in his statement last year that "the present fleets of MATS (Military Air Transport Service) and the airlines will not do the job."

Captain C. H. Schildhauer wrote last February that a sudden thrust by enemy forces could not be met by "surface transportation when we gear up through air power." It had to be met, he said, by "air transport and then followed up by our merchant fleet."

The price of our neglect is measured in bloody retreat in South Korea. Equanimity in Washington is the direct cause.

**F**OR the time being, the Korean war is technically not a war between two nations; it is some sort of "police action" by the United Nations, with the United States in the van as the UN's "policeman." On the surface, despite scores of thousands locked in furious battle, the fiction of a local conflict is being maintained by certain international politicians. This is mental isolationism.

We know no one personally who would like to see the Korean bubble burst into a global war, but a desire for peace does not necessarily mean its fulfillment. The long and short of it is that we must be wholly prepared for the eventuality of an all-embracing war. Anything else would be criminal and treasonable. If war never comes—and we pray it doesn't—then the billions paid for the defense of our people and friends would be the greatest bargain we ever purchased.

Meanwhile, we had better get busy turning out those cargoplanes—good cargoplanes, modern cargoplanes, fast cargoplanes, capacious cargoplanes, economical cargoplanes.

# Guest Air Cargo Editorial No. 34

FRANK MACPHERSON  
Special Cargo Representative  
BRANIFF INTERNATIONAL AIRWAYS



**E**XPORTERS here in the United States now have an entirely new factor to consider in international transportation: the routing of export shipments by air all the way from factory to consignee. Before expanding this new idea, let us first look at the development of international transportation prior to this new phase.

Like any progressive step, this new advancement has needed many years of slow growth and has just reached the final stages in the last year or so. Before the advent of air cargo, export shipments were forwarded by surface transportation from shipper to consignee. Rail was used from interior points to the gateway where the cargo had to be transferred to an ocean steamer for carriage to a foreign port. Often the ultimate consignee resided in an inland city, which made necessary another transfer to surface transportation in the foreign country for final delivery. This slow means of transportation, combined with the heavy packing required to withstand the long trek and numerous handlings, had many obvious disadvantages.

With the coming of international air cargo, some of these disadvantages were surmounted. The airplane could be used from the United States gateway to the foreign port and sometimes to the final destination. But the shippers still depended on inland freight (often Railway Express) for transportation to the gateway. Also, domestic airlines in foreign countries had not grown to the point where a satisfactory service could be offered for delivery to consignee not in cities served by international carriers. This meant that from a time standpoint most of the journey was consumed by surface transportation. Therefore, although the delivery time on a shipment was less, heavy packing and many handlings remained as obstacles to the development of international air cargo. Now, however, the third step in the development has been reached. This is the use of air cargo directly from the inland factory to the consignee in a foreign inland city. Time has been cut to a minimum, packaging is less costly and adapted to air shipping, and handlings are reduced or else performed by personnel trained for efficiency.

This new, widely used method of shipment has developed for two reasons: (1) the growth of domestic air freight here and abroad; and (2) entrance of United States domestic carriers into the international field. This gives the picture

of a vast United States network of airlines joined by international trunk carriers to similar networks of air freight service in many foreign countries. With the postwar growth of domestic air freight within the United States, air service has been given to the entire country, rates have decreased materially, and handling methods have improved to the point that dependable, low cost, fast transportation is available to domestic industry. Rates have now been reduced to the point where, in some instances, they can be compared to rail freight rates. Alongside this growth in the United States, many foreign countries have established air cargo service within their own boundaries. With the development of road and rail transport seriously impeded by natural geographic barriers, these countries have solved their internal problems of transportation and communications by use of aircraft. This is particularly true in Latin America. The result is the growth of a dependable air transportation system to serve the countries' needs.

To tie these new national systems, United States and foreign, together, some United States domestic carriers were allowed to enter the international field to provide adequate service for our industry. This is another postwar development. Overseas routes were granted to such airlines as American, Braniff, Chicago and Southern, Eastern, National, Northwest, TWA, and United. The extension of these routes is largely responsible for this new service to United States exporters.

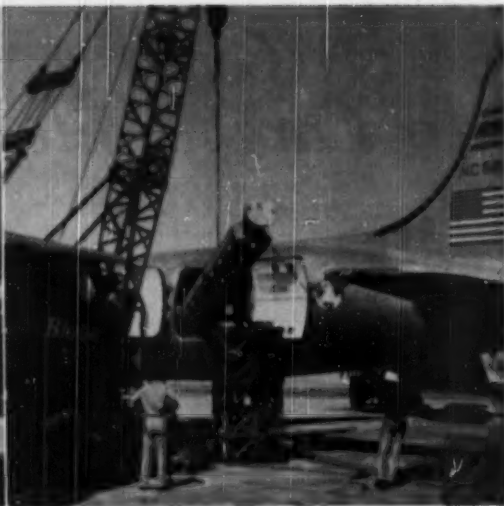
Airlines which serve the interior of the United States can now provide direct one-carrier service to many inland cities abroad. This is the ultimate in service desired by exporters for many years. The airline to which the shipper entrusts the cargo in an inland city is the same carrier that delivers the merchandise to the consignee abroad. It represents only one-carrier responsibility. For instance, a shipment from Chicago to Rio de Janeiro can now be handled by Braniff alone. To supplement the one-carrier service, between cities not served by one international carrier, joint rates and agreements were entered into to provide low-cost, dependable transportation by carriers experienced in air cargo. Out of this arrangement has come service, tailor-made for exporting firms.

Not only do they not have to package for surface trans-

(Continued on Page 16)



**GOLD IS WHERE YOU FIND IT**—in this case the cargo hold of a Transocean Air Lines cargo plane. This represents part of a \$50,000,000 shipment of gold hauled by air from Tokyo to the



Federal Reserve Bank in New York. Saved: time, insurance, and expenses for protection of cargo. . . Six-ton propeller shaft (right) airfreighted overnight from Oakland to Panama by Pan American.

Out California-Way, they're taking shipping-by-air seriously. One of the biggest projects of recent years is the two-pronged California Air Freight Clinic and Air Freight Fair which will be held in Oakland this month. Shippers, carriers, manufacturers, and government are combining to show that

## CALIFORNIA'S ON THE BEAM

By W. H. PARK, • President, Oakland Chamber of Commerce

**A**IR FREIGHT, which is logging its 24th year of service to California will be searchingly studied by experts in and out of the industry for the benefit of present and potential customers at the California Air Freight Clinic and Air Freight Fair to be held in Oakland, August 19 and 20.

While the spotlight will play on the service of the present and the immediate future and ways and means of penetrating the vast potential of sky-borne tonnage within the state, the pioneering era will have a brief moment during the meeting.

Air freight has gone far in its comparatively short career, but the pace has been so fast and the obstacles so engrossing that its history, at least as far as California is concerned, has never been officially compiled. However, old timers will generally agree that it entered the transportation pic-

ture as a long-haul contender against the surface carriers in November, 1926, when a single-engine Western Air Express plane winged into Los Angeles from Salt Lake City with Utah celery sprouting from the front cockpit into which usually were sandwiched a passenger, the mail bags, and the tool kit.

The celery shipment was the first of a series of similar ventures and was followed in the early Thirties by ambitious Los Angeles to New York flights with cut flowers, and later by pioneering hops across the Pacific.

The real push in air freight, in California as well as throughout the nation, came rolling out of World War II on the impetus supplied by air power enthusiasm and the war demonstrations of airlift, and it is to consolidate the postwar gains and open the way to new achievements and greater benefits that

the California Air Freight Clinic and Air Freight Fair are being held.

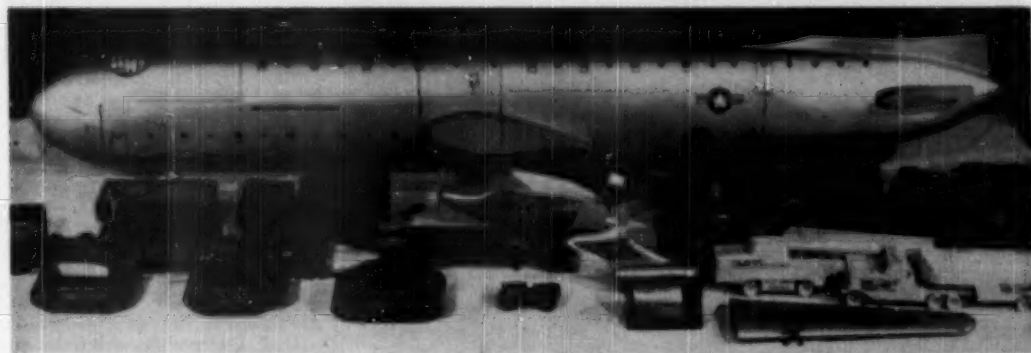
One of the first all-air freight events and the largest yet attempted, the Clinic and Fair evolved from the Oakland Chamber of Commerce Aviation Committee's long-time interest in developing air freight as a means of expanding the markets of the growing concentrations of industry and agriculture within its sphere of activity. In an early analysis of the situation, the committee found that the San Francisco-Oakland Bay region and the Los Angeles area and other fertile and productive sections of the Golden State could provide the answers to air freight dreams. They offered a rich and fast-growing market for the Eastern and Midwestern industrial centers and with the rest of California, provided the nation's largest production of fresh fruits

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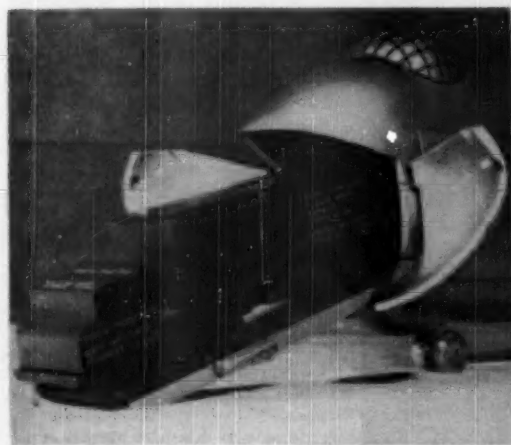


# CARGO TWIN OF THE XC-99

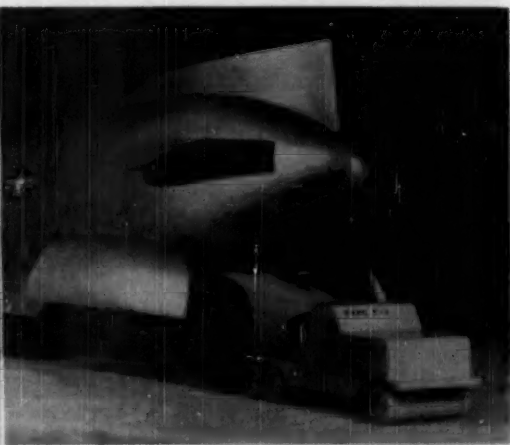
CONSOLIDATED-VULTEE'S PROPOSED TRANSPORT, cargo version of the XC-99, which earlier this year made a test flight with 100,000 pounds of freight aboard—an all-time high for airborne payload. Differing from the XC-99 in several respects, the C-99 offers easier loading through clamshell nose doors and elongated tail doors, 57 percent more usable cargo space, pressurized crew compartment and upper deck, B-36-type flight deck, and higher-horsepower engines. Cargo planes of this size would come in handy in Korea.



CUTAWAY SCALE MODEL of proposed C-99. In foreground are some heavy equipment which can be hoisted singly or more.

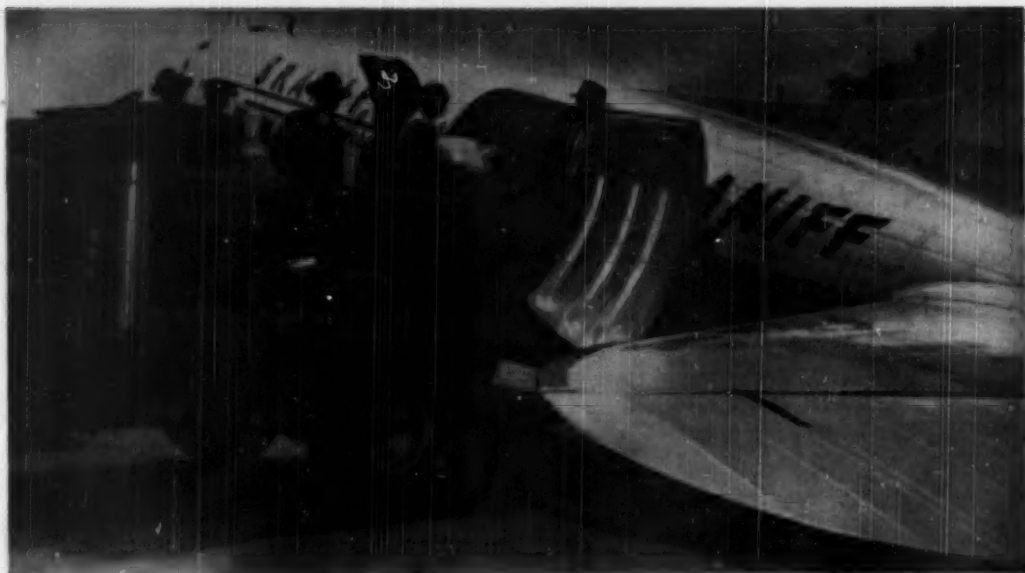


HOW TRUCK-TRACTOR could back into or drive out through clamshell nose doors. Plans of the C-99 provide for an entrance of approximately 12 x 13 feet, big enough for most anything.



HOW TRUCK-TRACTOR enters or leaves giant transport through elongated tail doors. Ramps at both the nose and the tail are at low angle, thus simplifying the loading and off-loading procedures.





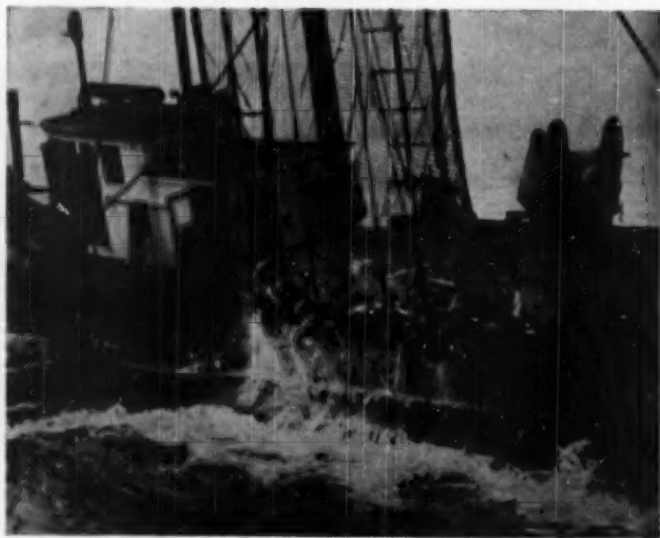
A CONSIGNMENT OF FRESH SEAFOOD airshipped out of Houston via Braniff.

## AIR EXPRESS vs. RAILWAY EXPRESS

### A Comparison of Freshness of Fishery Products

By WILLIAM B. LANHAM, JR.

Formerly Chemist  
Branch of Commercial Fisheries  
Fish and Wildlife Service  
U. S. Department of Interior



HAULED OUT OF THE SEA in nets, these fish will soon be on their way to market by air.

SINCE FRESH FISH AND SHELLFISH are most desirable in flavor immediately after being removed from the water, the speed with which fishery products reach the consumer would seem to be of considerable importance. Increasing interest, therefore, has been shown in air transport, the newest of the methods of cargo transportation, since it offers a marked advantage in speed over the conventional methods of surface transportation. For distances of 1,000 or more miles, several days are usually required for rail or truck shipment. The airplanes can cover this distance in less than a day. It would appear logical that fresh fishery products shipped by air transport would be fresher upon arrival than those shipped by other carriers, conditions being otherwise the same.

In order to determine whether or not the savings in transportation time made

NOTE: The author was assisted by Ralph Russell, Samuel R. Pottinger, and Rose G. Kerr.

possible by using air express would be reflected in the delivery of fresher fish and shellfish, the Fish and Wildlife Service conducted a number of trial shipments during December, 1946, and February, March and April, 1947. In general, the plan followed was to ship several species of fish and shellfish by air and by rail for a distance of at least 1,000 miles, and at the end of the trip to compare the products simultaneously for differences in freshness.

Several conditions had to be met which limited the source of the fishery products and the choice of the route over which they were shipped. All shipments had to terminate at a place where adequate facilities for conducting freshness tests were available. The origin and terminus of the shipments had to have commercial airport facilities. Shipments had to originate from a port where a continuing supply of fish and shellfish could be expected. The shipments had to travel at least 1,000 miles in order that there might be sufficient time differentials. With these limitations in mind, it was decided to make the shipments from several ports in Florida and from Seattle and to have them terminate at Washington, D. C. The fish and shellfish were tested after shipment at the Fish and Wildlife Service's Laboratory in nearby College Park, Maryland.

In comparing fishery products shipped by the two types of carriers, it would have been desirable to use two samples from the same catch. Since there would be a difference of several days in the transportation time, by the two methods, the samples would have been received

and tested several days apart. Comparisons by taste could not be made on this basis with any reasonable degree of accuracy. Consequently, fish and shellfish of comparable freshness and from the same locality, were obtained and shipped the necessary number of days apart so as to arrive for testing on the same day.

#### Packaging

Fish and shellfish to be shipped by surface carriers are commonly packed in wooden boxes or barrels with crushed ice. Water from the melting ice and drippings from the fish drain from these containers onto the floor of the truck or express car. The weight of the ice amounts to 50 percent or more of the net weight of the fish, but at the time of these experiments, shipping charges were based on 125 percent of the weight of the fish.

Under the system in use for air shipments transportation charges were assessed on the gross weight of the container and its contents. With the conventional box or barrel and ice, the cost of transport would have been based on the combined weight of the container, fish and ice. Shipping in this type of container would be too costly, since the shipping container and ice would weigh about as much as the fish. The leakage from these containers would present a problem, also, especially if the shipments were carried in a passenger plane or in a cargo plane with a mixed cargo.

At the time these tests were made, the packaging industry had produced

(Continued on Page 21)

**FAST..CAREFUL..DIRECT**

**AIR  
CARGO  
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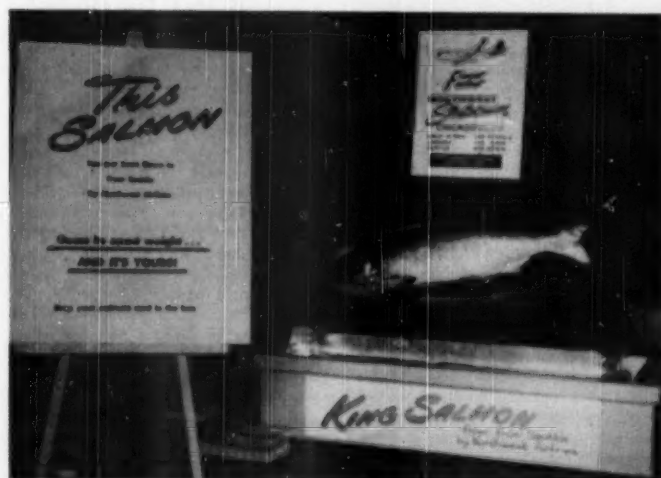
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# United States Overseas Air Cargo Services

By N. W. KENDALL  
Transportation Division  
Office of Domestic Commerce  
United States Department  
of Commerce

## PART V

FOR SOME TIME prior to November, 1946, the Bureau of the Census published statistics of exports of individual commodities rather than commodity groups. Table 8, compiled by selecting from each monthly published report the individual instances of exports valued at \$100,000 or more, reveals some details concerning specific commodities exported during the first 10 months of 1946 which are not apparent from Table 6.

Tables 9 and 10 pertaining to air imports correspond to Tables 6 and 8 dealing with air exports. The former depicts the value of general imports by air during each quarter of 1946 and 1947, by commodity group, the latter the value of leading individual commodity classes flown into the United States during each of the first 10 months of 1946.

An inspection of Tables 9 and 10 reveals clearly that, from the standpoint of dollar value, a relatively few commodity groups—chiefly watches, clocks and parts; precious stones; precious metals; and furs and manufactures—were predominant in the air import trade. Table 11, corresponding to Table 7 for exports, discloses the relative importance of goods in the air import movement during 1946 and 1947.

As in the case of air exports, but to a somewhat less marked degree, the 10 leading air import commodities in 1947, on the basis of value, were also relatively important in 1946. However, in the case of imports, the concentration of dollar value in a few commodities was more pronounced. The 10 commodity groups shown in Table 11 accounted for 79.8 percent of the total value of all United States general im-

Table 7.—Relative Importance of Leading Commodities in the Air Export Trade of the United States, 1946-47

Group No.	Commodity Description	Rank in 1947	Rank in 1946	Rank in 2 Years, 1946 and 1947	Combined Value in 2 Years, 1946-47 (\$000)	Percent of Value of All Commodities, 1946-47
30	Wearing apparel, synthetic fibers	1	6	2	\$35,306	11.4
83	Medicinal and pharmaceutical preparations	2	1	1	41,722	13.5
77	Aircraft parts and accessories	3	4	3	26,315	8.5
93	Fountain pens and parts and mechanical pencils	4	3	4	25,774	8.3
96	Jewelry, including precious metals	5	2	5	21,539	7.0
06	Furs and manufactures	6	5	6	18,584	6.0
71	Electrical machinery and apparatus	7	9	8	12,761	4.1
91	Photographic and optical goods	8	7	7	14,667	4.8
37	Synthetic fibers and manufactures, n.e.s.	9	8	9	10,521	3.4
95	Watches, clocks and parts	10	14	10	7,772	2.5
Total					214,893	69.5

ports by air during the two-year period, two of the 10 (watches, clocks and parts; and precious and semiprecious stones and imitation and industrial diamonds) alone making up 56.5 percent.

The foregoing discussion of air trade by commodity group has been in terms of dollar value. An analysis on the basis of shipping weight would reveal a somewhat different picture with respect to leading commodities. For example, such commodities as machinery parts, books and printed matter, textile fibers and manufactures, and inedible vegetable products would constitute relatively important components of total air exports on the basis of shipping weight, though not necessarily in terms of value. In the case of air imports, one of the chief commodities on a weight basis is avocados. Under agreements with Cuba, avocados have been imported only during the period from June 1 to September 30, and not during the remainder of the year. While relatively low-valued, shipments of avocados aggregated approximately 2.2 million pounds during the third quarter of 1946, or nearly 63 percent of the total shipping weight of air imports during that period.

### (C) Air Trade by Country of Origin or Destination

A relatively few countries account for the greater part of the value and

shipping weight of exports from, and imports to the United States via air, as will be shown in Table 12. But it is noteworthy that this country has conducted trade by air with a large percentage of all foreign countries. An analysis of foreign trade by air during April, 1947, reveals that, of some 139 individual countries or areas listed in Census Schedule C, Code Classification of Countries, all but 22 were destination areas for United States air exports, and all but 54 were origin countries for United States air imports. The 22 countries or areas to which goods were not shipped by air were Greenland; Miquelon and St. Pierre Islands; Estonia; Latvia; Gibraltar; Albania; Arabia Peninsula States, n.e.s.; Asia, n.e.s.; Manchuria (Manchukuo); Korea (Chosen); Taiwan (Formosa); New Guinea (Australian); Anglo-Egyptian Sudan; Cameroon; British West Africa, n.e.s.; Madeira Islands; French Somaliland; British Somaliland; Seychelles and Dependencies; Mauritius and Dependencies; Northern Rhodesia; and Southern British Africa.

In addition to the above 22 areas, which carried on no air trade in either direction with the United States, the following 32 countries or areas exported no goods to the United States by air during April, 1947: British Honduras; Barbados; Falkland Islands; Lithuania; Malta, Gozo and Cyprus; Rumania; Bulgaria; Kuwait; Aden;

State of Bahrain; Afghanistan; Ceylon; French Indo-China (including French India); Portuguese Asia; Hong Kong; Western Pacific Islands, n.e.s.; French Morocco; Tangier; Tunisia; Libya; Canary Islands; Spanish Africa, n.e.s. (Spanish Morocco, Rio de Oro and Spanish Guinea); French Equatorial Africa; Gold Coast; Nigeria; Portuguese Guinea, n.e.s.; Liberia; Eastern Italian Africa; British East Africa; Mozambique; Madagascar; and Southern Rhodesia.

A further observation concerning trade by air in April, 1947, is that a number of the countries shown above with which no such trade was conducted also carried on no ocean trade with the United States during the month under consideration. In April, 1947, no United States exports by any medium of transport were received by Estonia; Latvia; Asia, n.e.s.; Manchuria (Manchukuo); and Portuguese Guinea, n.e.s. During the same month, the United States received neither air or ocean imports from Greenland; Milquelon and St. Pierre; Falkland Islands; Estonia; Latvia; Lithuania; Gibraltar; Albania; Kuwait; Asia, n.e.s.; Manchuria (Manchukuo); Korea (Chosen); Taiwan (Formosa); New Guinea (Australian); Canary Islands; Spanish Africa, n.e.s. (Spanish Morocco, Rio de Oro and Spanish Guinea); French Somaliland; Mauritius and Dependencies; and Southern British Africa.

United States air exports during April, 1947, ranged from shipment of two pounds (to Bulgaria) to 631,055 pounds (to Mexico); in terms of value from \$1 (Eastern Italian Africa) to \$2,585,243 (Mexico). The weight of imports by air varied from one pound (received from Azores) to 353,077 pounds (from Canada); while their value ranged from \$24 (Paraguay) to \$2,826,893 (Switzerland).

Table 12 summarizes for the year 1947, and for each quarter, the value and shipping weight of United States

Table 8.—Value of United States Exports by Air of Domestic and Foreign Merchandise, Leading Commodities, January-October 1946<sup>1</sup>

(In thousands of dollars)

Commodity	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Mink, undressed	101									
Fur, dressed or dyed, n.e.s.	147	125	249	330						133
Fur wearing apparel	184	110	200	335	402	383	254	290	501	400
Drum, etc., synthetic, except knit or crocheted	126	130	305	290	190	160	110	196	196	231
Nylon hosiery, women's and children's	230	254	457	537	131	265	227	402	503	386
Antibiotics, derivatives & preparations	362	348	833	708	1,400	1,340	1,344	1,200	1,019	564
Medicinal chemicals for prescription use, n.e.s.	124						107			
Eyeglasses, n.e.s. and frames	163		117	190	100	171	175	176	231	185
Tooth	100		119	207	110	142		167	132	102
Pen, fountain and stylographic of plastic materials	307	135	192	284	205	471	336	439	790	734
Jewelry, etc., gold or platinum	108		130	189	140	545	173	212	881	274
Jewelry, women's, metal except gold or platinum	105		110	275	279	321	280	300	300	547
Stones, precious, semiprecious, synthetic, and imitation, n.e.s.	230	138	261	144	203	191	239		265	201
Merchandise, value less than \$25	135		172	168	162	172	136	164	179	228
Other aircraft parts and accessories, n.e.s.	142	111	215	253	526	343	292	356	514	455
Fur manufactures, n.e.s.			170	229	130	210		137		107
Woven synthetic yarn fabrics, n.e.s.			132	131		123		228		139
Diamonds for industrial use only			277		156	108	108		145	
Glandular products			104						191	
Jewelry, men's, except gold or platinum			112	123	140	161	143	146	173	204
Parts of aircraft, radio transmitters and receiving sets					128				108	
Parts and accessories for aircraft engines, n.e.s.				135	205	216	137	147	103	137
Motion picture features, exposed, 35 mm. positive				136	120				118	133
Jewelry, women's, all materials, except metal				167	122	115	104	144	128	131
Fur, lamb and sheep, dressed or dyed				106						121
Vitamins and vitaminoids (fish oils and fish liver oils and concentrates, medicinal grade)						130		131		118
Dental metals, precious, except silver alloys and amalgams					100			115		107
Vaccines for human use					147					
Platinum bars, ingots, sheet, etc.						178	125	108	129	
Pen, fountain and stylographic except those of plastic materials							140	222	206	337
Watches with jewels							146		150	196
Wool cloth and dress goods								131		
Radial dial engines over 1830-inches piston displacement			143	125						
Pen parts, fountain and stylographic								100		
Notions, cheap novelties, and specialties, n.e.s.								161		110
Radio receiving sets										210
Aircraft engine parts and accessories: carburetors, cowls, crankcases, cylinders, generators, magnetos, spark plugs, starters, superchargers and valves for use in aircraft engines								114		122

<sup>1</sup> The table is restricted to individual commodity with monthly export value of at least \$100,000.



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**T**HE sudden invasion of South Korea by the Communist forces north of the 38th Parallel has brought a repeat job of Pearl Harbor. Although requisitioning is not yet the order of the day, military authorities are calling upon the commercial airlines to haul cargoes to the Far East. Carriers already involved are: Northwest, United, Pan Am, Seaboard and Western, Flying Tiger, Transocean, Alaska, TWA, Capital, American Overseas, and Overseas National.

BOAC's planes have been busy flying errands of mercy these past weeks. Recently a Stranraiser hauled eight tons of relief supplies from London to Winnipeg for victims of the disastrous floods (see picture in last month's AT). A few days later, 11 tons of bedding, curtains, towels, and other household equipment followed. On the other side of the world, BOAC planes flew tons of penicillin to India.

Among the more normal consignments carried by the British airline was a half-ton (17 units) of furniture, from Prestwick to New York: cocktail cabinet, chairs, and tables, to be set up in a Scottish firm's New York office.

Israel is negotiating with Belgium and Italy with an eye toward settling bilateral air transport agreements. El Al, the Israeli air carrier, which is inaugurating direct flights to New York, operates nine aircraft with a tenth soon to join the fleet. Four DC-4s fly the Israeli flag, two of which were purchased from United Air Lines. Five C-46s are flown internally. A DC-3 is awaited.

No one expects to see coal in normal commercial flight for many a decade to come—if ever—but only the other day KLM hauled a shipment of coal from New York to Zurich. Truth to tell, it was only a consignment of coal samples for the Swiss Gas Works.

A new service to Madrid was opened several weeks ago by the Dutch airline. The new service, which is routed via Frankfurt and Nice, is on a twice-weekly basis.

The North American Division reports that during the month of May a new high in the movement of air cargo was reached. The total of 235,000 pounds of revenue cargo broke KLM's best previous month of July, 1948.

Trans-Canada Air Lines tells the story of a Toronto business man who moved his entire household of furniture a distance of 1,000 miles in only 6½ hours. The six

rooms of furniture (piano, stove refrigerator, washing machine, chest-of-drawers, bed, china, etc.) weighed 6,500 pounds. A single plane did the job.

Northwest Airlines is doing it the right way. J. M. Cook, director of advertising for the airline, accompanied by Mark Mitchell, copy chief of Birmingham and Walsh, advertising firm, are in the Orient for the purpose of making surveys and gathering material which would be helpful in stimulating NWA's cargo and passenger business. The information Cook and Mitchell will come home with will find their way into ads, displays, movies, etc.

**Destination tape labels**—"a positive means of determining the destination of a package by a quick glance"—is the brain-child of Curt Haxthausen, cargo traffic superintendent for Pan Am's Pacific routes. Each destination has an individual color design to make it stand out. Benefits of the new scotch tape labels, which were produced with the aid of Cellotape Printers, Palo Alto, California, are listed as follows:

- Individual color schemes for each station enable the shipments to be spotted in a jiffy for stowing in or unloading from aircraft.
- Bright colors air ramp crews in stowing cargo of same destination together.
- Errors are eliminated in warehousing of freight by destination.
- Shipments offloaded in error can be caught in time.
- Transshipment simplified.

TWA arrived in New York the other day with what amounted to a good-sized menagerie aboard a cargo plane from Paris. Aboard were seven baby African gorillas,

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25 monkeys, a dozen chimpanzees, and nine vipers. The animals were consigned to Trefilich's Bird and Animal Company, New York. They'll wind up in various menageries throughout the country.

May was a record cargo month for Braniff International Airways, besting the same month last year by 113 percent. Frank Macpherson, special cargo representative (see Guest Air Cargo Editorial), stated that "during the first five months of 1950, Braniff Airways' air freight revenues increased 74 percent over those for the same period in 1949. This included an increase of 54 percent in Braniff's domestic air freight revenue."

Sabena's inauguration of helicopter mail pickup and delivery service in Belgium is scheduled for this month. The Belgian airline's two Bell helicopters will meet the big airliners at Melsbroeck Airport, Brussels, transferring air mail for delivery to London, Paris, New York, and other big cities in Europe and the United States.

Western Air Lines has applied to the Civil Aeronautics Board for permission to operate one-plane service between Los Angeles and Minneapolis-St. Paul.

Mid-Continent Airlines also reports that May was its best cargo month since cargo operations were started 3½ years ago. Revenue was 32 percent above May, 1950, and tonnage 38 percent over.

Harding L. Lawrence, vice president-traffic and sales, Pioneer Air Lines, gives the news that January-May, 1950, as compared with January-May, 1949, shows air freight ton-miles up by 105 percent, air express up 67 percent, air mail up 13 percent, and excess baggage up 19 percent.

In a six-month review of the Flying Tiger Line (November, 1949-May, 1950), issued by Robert W. Prescott, president, the air freight carrier gained 25 percent over the same period of 1949. Prescott, recently returned from Europe, stated that "integration of operations under the certificate has been a major task and we should see the full effect of our plans and expansions in the second half of the year." The line is operating 19 domestic stations

(there were only a half-dozen last year) and the airfreight fleet has been doubled. FTL's president predicted that the last half of 1950 will be "the most successful in our history."

Joseph J. O'Connell, who became chairman of the important Civil Aeronautics Board on April 6, 1948, has resigned his post. He stated that he wished to return to private life because of "personal considerations." O'Connell's term was to have terminated December 31, 1953.

The New York Times, in a recent editorial entitled, *Air Carriers*, spoke of the "coming development of special cargo-type aircraft which may be expected to bring closer the day when air transport, like other forms of transportation, will draw its principal revenue from the carriage of goods rather than of persons." Something we've been hunking for years!

A materials handling classification has been added to the Fourth Annual Protective Packaging Competition to be held in Philadelphia October 10-12, by the Society of Industrial Packaging and Materials Handling Engineers. The new Materials Handling Contest Division will offer three cash awards totaling \$175. The Harold Jackson Award (packaging which offers the most satisfactory method of protecting machinery against corrosion)

and the Irving J. Stoller Award (most ingenious interior packaging) will be offered again this year.

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# GUEST EDITORIAL

(Continued from Page 7)

portation, but in many cases there is no inland freight charge. For example, a shipper in Detroit can forward a shipment through the Houston gateway to South America for the same rate as that applicable to a shipment originating in Houston. The Detroit-Houston portion is absorbed by the air carrier. This is also true for any city from New York west to Chicago or Kansas City on the routes of Capital, TWA, and United in combination with Braniff international service. This vast industrial area can now ship by air via Chicago to Central and South America directly from the plant on one airwaybill for the same rate applicable from New York or Houston and equal or less in cost to Railway Express to Miami and air to destination.

The progressive export manager can quickly see the value of this new concept in export trade both for the present and the future. Now all of the advantages of air transportation can be utilized by his firm. This will no doubt cause some readjustment in the present organization of exporting firms and forwarders. Firms which have production plants inland and exporting offices at gateways can now consolidate by exporting directly from the inland factory. For example, why forward a shipment en route to Sao Paulo from a plant in Cleveland to New York for handling by an export office? That same shipment can move directly from Cleveland via Chicago for the same rate as would be used from New York, thereby saving the inland freight charge from Cleveland to New York. This is one reason some freight forwarders are opening branch offices in inland cities instead of concentrating at gateways.

All companies engaged in exporting should thoroughly investigate this progressive development in international air cargo service. For it may not only mean improved service, but also lower costs to satisfy the customers abroad.

# U. S. OVERSEAS AIR CARGO

(Continued from Page 13)

exports by air of domestic and foreign merchandise and general imports of merchandise by air, by specified countries of destination and origin, respectively. The countries are arranged by continent; and for the sake of brevity only selected countries of importance in air trade with the United States are shown individually, the remainder being grouped as residual items under each continent.

The 1947 summary shown in Table 12 (published next month) reveals much information concerning the geographical pattern of United States foreign trade by air. It will be observed that 25.6 million pounds were exported from the United States to other areas of North America, constituting 58.1 percent of the total shipping weight of

United States air exports. Two countries, Cuba and Mexico, alone accounted for 40.2 percent of the weight of total air exports from the United States. Next in importance as a market for United States air exports was South America, which represented 25.2 percent of the total weight. Europe accounted for 10.9 percent of total United States air export tonnage in 1947, while Asia, Africa, and Australia, New Zealand and Oceania, in that order, made up the remaining 5.8 percent. On the basis of value of air exports, the six continents ranked in the same order as in the case of shipping weight, but the relationships among the individual countries and continents were somewhat different. Europe, with Belgium and Luxembourg and Sweden predominating, accounted for 24 percent of the total value of United States exports by air, a much larger share of total than in the case of shipping

Table 10—Value of United States General Imports of Merchandise by Air, Leading Commodities, January-October 1946<sup>1</sup>  
(In thousands of dollars)

Commodity	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Diamonds, rough or uncut	536	551	664	150	234	151	198			
Diamonds, cut but unset	1,002	626	1,064	987	664	732	859	1,042	1,191	510
Semiprecious stones, other than turquoise, cut but not set	218	210	294	245	366	662	130	406	254	319
Watches and watch movements	501	404	510	358	240	154	317	296	301	720
Watch cases, etc., base metal	273	340	296	223	102					104
United States articles, returned, n.s.a.	390	138	218	251	147	275	1,227	352	460	521
Platinum grain and nuggets		130				308	288	257	167	261
Marble, cut, uncut			111	313	182	111	222			
Artworks, for exhibition or education			155							
Leather gloves, hand-seamed				127			106	124	105	
Emeralds, rough or uncut				276				271		
Natural pearls					133					
Fox fur, other than silver or black fox						140				
Mink fur, undressed						783				101
Cultured pearls and parts						216	332			
Platinum ingots, bars, sheets or plates						252	175	195	133	
Floral essences (perfume materials)						108		153		116
Citronella oil							122			
Crude minerals, n.s.a.									114	
Stamps, foreign, postage or revenue, and foreign government stamped envelopes									110	
Perfumery containing alcohol									106	
Book manuscripts, n.s.a.									112	
Diamond bort										297

<sup>1</sup> The table is restricted to individual commodities with monthly import value of at least \$100,000. In the case of "watches and watch movements," several individual commodity groups, each showing the required minimum value, were combined. The total shown above, hence, does not include the value of all watches and watch movements imported.

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Table 9--Value of United States General Imports of Merchandise by Air, by Commodity Group, and by Quarter, 1946 and 1947

(In thousands of dollars)

Group No.	Commodity description	1947					1946				
		Year 1947	4th quarter	3d quarter	2d quarter	1st quarter	Year 1946	4th quarter	3d quarter	2d quarter	1st quarter
01	Animals and animal products, edible	1,310	495	140	606	144	552	305	112	167	68
02	Leather & manufactures	1,183	396	192	146	407	3,754	1,234	906	905	708
03	Furs and manufactures	5,044	889	1,310	1,876	973	2,925	366	422	1,879	319
09	Animals & animal products, inedible, n.e.s.	1,631	983	253	133	460	307	137	50	81	49
13	Vegetables, fresh or frozen	77	1	1	8	71	4	0	1	3	1
14	Vegetables & preparations, n.e.s.	25	1	1	14	11	8	1	7	1	1
15	Fruits, fresh or frozen	101	12	47	11	11	131	26	96	9	0
16	Fruits & preparations, n.e.s.	6	1	6	1	1	42	1	42	1	1
17	Beverages	20	4	5	9	9	7	3	3	1	1
19	Veg. food products & beverages, n.e.s.	21	7	1	3	11	51	25	5	1	1
22	Drugs, herbs, leaves, roots, etc.	204	76	38	52	42	87	60	9	8	10
25	Veg. oils & waxes, inedible	943	380	15	272	343	700	230	316	224	30
26	Nursery & greenhouse stock	339	41	142	91	45	345	73	72	62	18
27	Tobacco & manufactures	549	323	14	8	9	66	19	8	13	26
29	Veg. products, inedible, exc. fiber & wood, n.e.s.	100	30	19	48	113	138	72	23	45	16
32	Cotton wearing apparel	163	77	34	26	26	316	37	46	103	30
33	Cotton & manufactures, n.e.s.	131	60	22	25	24	115	70	14	22	9
35	Wool wearing apparel	216	96	26	23	37	361	90	50	45	67
36	Wool & manufactures, n.e.s.	86	10	16	30	10	136	45	26	21	47
38	Silk & manufactures	427	220	66	67	74	509	143	79	103	184
39	Textile fibers & fabrics, n.e.s.	571	157	119	99	196	668	217	182	175	94
44	Wood & paper	40	14	11	9	16	33	17	8	5	8
57	Free. & semi-precious stones & imit. & ind. diamonds	11,185	4,178	2,631	1,768	2,356	19,017	2,796	5,363	5,364	5,093
59	Nonmetallic minerals, n.e.s.	154	54	37	28	36	207	32	155	11	9
65	Free. metals and plated ware, exc. jewelry, gold or silver ore and coin	4,451	319	540	3,025	787	4,682	2,040	1,366	812	434
67	Jewelry, including precious metals	227	64	48	39	76	893	215	229	219	229
69	Metals and mfrs. exc. mach. & veh., n.e.s.	145	60	28	25	32	95	34	31	30	10
78	Machinery & vehicles	317	68	55	39	55	104	39	81	16	18
83	Medicinal & pharmaceutical preparations	1,053	78	164	497	374	1,065	366	340	305	144
87	Soap & toilet preparations	382	131	44	112	275	1,035	303	457	243	32
89	Chemicals & related products, n.e.s.	25	1	11	4	9	58	37	11	10	1
91	Photographic & optical goods	2,426	879	792	314	450	804	369	143	163	129
93	Musical instr., toys & sporting goods	186	101	26	34	15	87	54	22	6	1
95	Books & printed matter	1,611	291	94	1,079	148	706	151	364	116	135
96	Watches, clocks & parts	40,756	13,395	9,818	8,674	8,860	13,872	5,577	2,386	2,534	3,375
97	Art works	1,939	654	318	365	402	1,296	554	234	196	314
98	Articles originating in U. S. returned	10,054	3,069	2,415	2,147	2,432	5,268	1,712	2,090	668	788
99	Misc. commodities, n.e.s.	827	260	152	333	82	440	115	94	114	117
Total		89,529	27,967	30,131	21,966	19,435	69,460	17,398	15,616	14,536	13,097

<sup>1</sup> Less than \$500.

weight. Asia and South America also showed higher percentages of total United States air exports in terms of value than in terms of shipping weight, while North America showed a considerably lower percentage.

With respect to United States imports by air during 1947, Table 12 discloses that in terms of shipping weight, the United States purchased the greater part of its airborne goods from other countries in North America—81.6 percent of the total air import tonnage. The leading countries of origin were Cuba, Canada, and Mexico. Next to North America in terms of weight of shipments by air to the United States ranked Europe, South America, Asia, Africa, and Australia, New Zealand and Oceania, in that order. In terms of import value, however, the picture was much different. Air imports from Europe constituted 70.5 percent of the total value of United States air imports. Switzerland alone made up nearly one-half (47.9 percent) of the total.

(Continued Next Month)

Table 11--Relative Importance of Leading Commodities in the Air Import Trade of the United States, 1946-47

Group No.	Commodity description	Rank in 1947	Rank in 1946	Rank in 2 years, 1946 and 1947	Combined value in 2 years, 1946-47 (\$000)	Percent of value of all commodities, 1946-47
96	Watches, clocks & parts	1	2	1	\$54,628	36.4
57	Precious and semi-precious stones and imitation and industrial diamonds	2	1	2	30,172	20.1
05	Furs and manufactures	3	5	4	7,573	5.3
65	Precious metals and plated ware, excluding jewelry, gold or silver ore and coin	4	3	3	9,333	6.2
91	Photographic and optical goods	5	10	6	3,230	2.2
97	Art works	6	6	7	3,207	2.1
09	Animals and products, inedible, n.e.s.	7	16	10	2,053	1.4
95	Books and printed matter	8	11	8	2,377	1.6
01	Animals and animal products, edible	9	14	11	1,871	1.2
03	Leather and manufactures	10	4	5	4,935	3.3
Total					\$119,679	79.8

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*The shipper who doesn't pay attention to the problem of packaging isn't being smart at all. Gaining know-how for shipping by air can be a very profitable thing. The difference between a good and bad package is not only measured by the safety of its contents, but by its light weight which reflects in lower shipping costs. The modern shipper knows that . . .*

## Proper Packaging Means

**P**ACKAGING is becoming a major factor for the development of new commodities and new markets in air freight. To understand its relationship to air freight requires a thorough knowledge of the background and present problems of this new transportation medium. To assist and to stimulate thought in this respect is the primary purpose of this article. Packaging ingenuity can do much to assist in speeding up the growth of air freight.

Air freight is not an adjunct to any other transportation system; it is a new business, selling a new service, creating new employment opportunities, new merchandising methods, new markets,

and providing an expeditious means of freight transportation. No aspect of our economy will remain unaffected by this progressive mode of transportation. Consequently, the packaging problems of this rapidly expanding industry should receive immediate thought and consideration by all container producers.

The history of air cargo can probably be said to have begun in 1927 when a predecessor of the Railway Express Agency inaugurated scheduled air shipment as an appendage to its service. Earlier efforts in the air shipment field were confined principally to experimentation, with the volume of traffic insignificant. Generally speaking,

the prewar era of transportation reflected an apathy on the part of airlines, with regard to the development of air cargo. Nevertheless, the limited knowledge gained through experience was of some value in initiating the extensive program of wartime air transport which was used so successfully for shipment of military equipment and supplies.

Improved plane design, new cargo handling methods, improved packaging, expeditious loading and unloading, and other important phases of air shipment which were developed during the war, gave a much greater impetus to the present day growth of the air freight industry. Another important factor in the postwar growth of the air freight industry which can be traced to World War II, is the increased consciousness of the potentiality of the airplane as a freight carrier. The realization of practical air shipping has grown with the increased number of airports capable of accommodating the larger airfreighters and their cargo. In this connection, postwar experience indicates that the future trend in airport design may be planned air freight facilities separate from passenger facilities.

The generic term "air cargo" may apply not only to air freight, with which we are particularly concerned, but also to air parcel post and air express. These three types of air shipment are all available for public use. The type selected by the shipper is contingent upon the type of air transportation that is likely to prove most beneficial for specific commodities. All of these methods have a definite place in the air shipping pattern.

Air express is a nation-wide transportation system operated by the Railway Express Agency through contracts with certificated airlines. This type of air shipment provides the fastest pos-



THESE CUT FLOWERS, shipped via Trans-Canada Air Lines by a British Columbia grower, are packed in sturdy though light cartons. Result is expanded flower markets.



# Money in the Bank



THESE CARTONS of fresh fish are marked "Do Not Delay" and "Perishable." Note loading procedure in American Airlines plane.

sible air-rail schedule, partially due to the extensive facilities afforded by the 23,000 Railway Express Agency offices located throughout the country.

The air parcel post service was inaugurated September 1, 1948. This method of air shipment provides overnight delivery of small packages to almost any place in the United States. These packages are mailed at any Post Office and are delivered to the doorstep. Air parcel post shipments receive the same preferential handling enroute as that accorded air mail. The weight limitations are not less than eight ounces and not more than 70 pounds. Packages must not exceed 100 inches which includes the combined length and girth. This type of shipment also provides service to noncontiguous areas and permits shipping of small packages to international destinations at air speed.

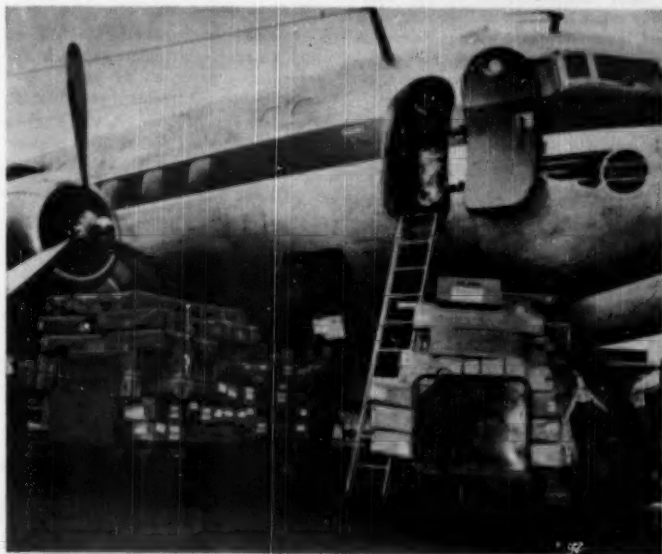
The term "air freight" applies to cargo that is neither air express nor air parcel post. It is a new basic method of shipping designed to move merchandise at air speed in a regular flow on a volume basis. Merchandise moves on an airport-to-airport basis. Pickup and delivery service is available at additional cost. The size and packaging of commodities are limited by the size of the fuselage and its doors, plus the weight-load limit of the cargo plane. The air freight industry is still too new for all of its potentialities to have been explored, but additional uses and advantages are turning up from day to day. It has two distinguishing features—two general characteristics which are

stressed to the shipper; they are speed and specialized service.

Although the primary interest of the domestic air industry has been its passenger traffic, increasing attention was also given, immediately after the war, to the development of air cargo service. The tremendous increase in cargo volume since 1946, as a result of this increased attention, has since become an outstanding feature of the domestic air lines history. Today, air freight is the

most rapidly growing segment of America's commercial aviation industry. Combined air freight and express ton-miles of the 16 certificated domestic trunklines increased from approximately 38.1 million in 1946 to 122.9 million in 1949. During the same period, the air freight ton-miles of the three all-cargo lines now certificated by the CAB rose from an estimated 18.4 million to 36.4 million. These data typify the

(Continued on Page 22)



SHIPMENTS bound for such foreign points as Belgium, Yugoslavia, Rumania, Hungary, Greece, Israel, and Morocco, are loaded into the belly of a Sabena transport at Idlewild.



## CALIFORNIA

(Continued from Page 8)

and vegetables for the backhaul together with great possibilities in the imports and exports flowing through the state's world famed ports.

The Oakland Chamber's Aviation Committee forthwith, in 1946, held the first Pacific Coast Air Freight Forum, and followed it with continuing promotion aimed at encouraging and assisting the development of air freight, both domestic and international. In the first year of the promotional program, air freight moving through Oakland Municipal Airport amounted from a handful to 5,000,000 pounds, and the progress in succeeding years has been most encouraging.

The committee's promotional program covers a wide field of effort, ranging from assisting the carriers and shippers in solving individual and industry problems, and arranging meetings spotlighting air cargo, to publicizing its achievements. The newspapers and radio stations and other media have been enlisted in the program and they have helped immeasurably in spreading the word.

Co-sponsoring the California Air Freight Clinic and Air Freight Fair with the Oakland Chamber Aviation Committee is the California Aeronautics Commission; and the Air Cargo Institute of California, the Oakland Board of Port Commissioners, and the industry are cooperating to the fullest.

Early announcements of the state-wide event have aroused wide interest and inquiries have been received from as far distant as Bombay and Brussels.

The purpose of the event may be stated briefly and to the point:

To increase the use and benefits of air freight to the economy of the state and the nation.

Its aims are equally to the point:

To correct as far as possible, through the development of new California originated tonnage, the traditional unbalance in the transcontinental flow;

To convert to the air a greater portion of the cut flower traffic, which in 1945 recorded a \$450,000,000 retail sale value in out of state markets;

To penetrate further the perishables and seafood field, and to develop this into a year-round movement;

To attract a greater and continuing eastbound movement of hard freight from the state's growing industrial centers, which in 1947 set a \$3,994,981,000 value added by manufacture mark;

To secure at least the top half of the output of the state's fast-developing apparel industry.

The program is being arranged to insure a maximum of interest from the present and potential shippers, growers, packagers, aircraft manufacturers, producers of handling equipment, air terminal operators and others not directly engaged in the actual air transportation of cargo. The carriers also will have their panels and a vast amount of interesting and enlightening discussion is assured. In the interest of securing results, only practical matters have been selected for panel discussion and those which fall in the dream category have been banned.

Highlights of the panel program include:

- First release of an exhaustive study of air freight economics conducted for the California Aeronautics Commission by Harry Karst, aviation consultant and air cargo pioneer.

- Talks on terminal handling at major airports and intermediate fields, including a paper on the ground terminal developed by Lockheed Aircraft engineers.

- Case studies by executives of shipper firms illustrating the relative costs of shipping by air and surface, and

the marketing, reduction of inventory, speed and other advantages gained by air.

- Announcement of new freight aircraft now available to the industry and what they can mean rate and service-wise.

- Discussion of the services and procedures of international air freight highlighted by case studies.

- Report on recent discoveries in precooling and what they mean to air-borne perishables.

- Discussion of the handling of insurance claims, losses, and damages in air freight.

- Talk on recent developments in packaging for air freight.

- Report on the present and future of the ground transportation phase of air freight.

- Discussion of the potentials and problems of the multi-million dollar long-haul cut-flower industry that has been developed by air freight.

Heading the panels and flanking them on the platform will be leading national and international authorities, selected by a Clinic Committee from the Air Cargo Institute of California.

The panel leaders will present formal papers, which at the conclusion of the Clinic, will be compiled together with factual reports on the discussion, into book form. The books, a complete record of the Clinic, will be available to interested parties. The panel members will join with the leader in answering questions from the audience.

Luncheon speaker at the Clinic which will be held at the Hotel Claremont, August 19, will be Wayne W. Parrish, the aviation publisher; and Governor Earl Warren of California, who has been a moving spirit in air freight development programs, has been invited to open the affair.

The Air Freight Fair will be held at Oakland Airport Sunday, August 20, where more than 100,000 square feet of hangar and ramp space has been donated by the Oakland Board of Port Commissioners as another of its nu-



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PAGE 20—AIR TRANSPORTATION—Air Commerce

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merous contributions to the aviation industry. Initial response to the Air Freight Fair announcement assures a wide variety of booth exhibits and rump demonstrations. The demonstrations will include the actual loading and departure of freighters speeding cargo to distant markets.

For the benefit of the industry and its present and prospective customers, a preview period of two hours will be set aside for industry guests prior to the opening of the Fair to the public at noon.

The Air Freight Fair will be held on a site hallowed by early pioneering in air freight and later by the Naval Air Transport Service's magnificent airlift support of the war in the Pacific.

Principals in the planning of the Clinic and Fair include:

The California Aeronautics Commission—John Felton Turner, of Oakland, chairman; Bruce Church, of Salinas; Earl Pruden, of San Diego; Norman Larsen, of Burbank; and State Director of Aeronautics Warren F. Carey.

The Oakland Chamber of Commerce Aviation Committee—Fred B. McCormac, chairman, and the Clinic Committee headed by William H. White, with Howard Waldorf as secretary-manager.

The Air Cargo Institute of California Clinic Committee—appointed by President Harold Angier and headed by L. R. Hackney.

The Oakland Board of Port Commissioners—Claire V. Goodwin, president; Dudley W. Frost; Stanley Burgraff; James F. Galliano; H. W. Estep; and Port Manager Arthur H. Abel.

### AIR EXPRESS vs. RY. EXPRESS

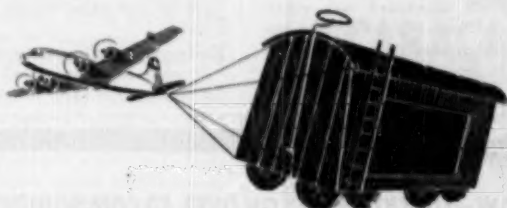
(Continued from Page 11)

at least three types of containers deemed suitable for air shipment of fishery products. Made of fiberboard and designed to hold about 10 times their weight in fish, they were insulated to retard the temperature rise during the relatively short time in transit. Two

types could be refrigerated with dry ice, i.e. solid carbon dioxide. The cost of these containers per unit of fish held in them was approximately equal to that of a box or barrel. The containers were intended to be used once and then discarded. Fish to be shipped in these containers were chilled to just above freezing temperature and packed in containers which were then securely sealed. The insulation by itself or with the aid of dry-ice refrigeration helped to maintain the fish at a safe temperature.

### Air shipping containers

**Type A container**—This container

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This dry ice was held in place by a specially constructed tray of corrugated fiberboard. The outer box was then tightly sealed with gummed tape. The cold vapors from the evaporating dry ice circulated freely about the inner box and cooled it. In effect, the inner box containing the fish was floated within the outer box.

**Type B container**—This container, also, utilized an inner and outer box with an air space between for insulation. It differed from type A in that the air space was compartmented and the boxes were made of water-repellent fiberboard. A space holding a maximum of six pounds of dry ice was provided in the top of the inner box. Due to the manner of construction and the fact that the fiberboard was water-repellent, no inner, water-tight bag was necessary when packing fish. This container held about 35 pounds of fish.

**Type C container**—This container

was made to hold 40 pounds of fish and consisted of a corrugated fiberboard box within a similar but larger box. A pad of corrugated paper insulation, one inch thick, was placed between the two boxes so as to fit snugly. The insulation was made in three pieces: a top, a bottom, and a continuous piece which was bent to cover the four sides. Both inner and outer boxes were sealed tightly with gummed tape. This container was not water-repellent, so that fish had to be packed in a water-tight bag within the inner box.

Three types of water-tight bags for use in the inner boxes of these containers were tested. They were made of cellophane, rubber hydrochloride and polyethylene. All were thin films and could be heat-sealed to give water-tight closures.

#### Railway shipping containers

Wooden boxes and small barrels of the regular type were used to pack the

fish and shellfish sent by railway express. A layer of crushed ice was put in the bottom of the container, the fish were placed on the ice and then the container was filled with more crushed ice before the top was nailed in place.

(Continued Next Month)

#### PROPER PACKAGING

(Continued from Page 17)

tremendous growth of air shipment. In comparison to the volume of traffic shipped via surface transportation, however, air freight shipments for 1949 were still relatively insignificant—but the growth possibilities stir the imagination. The early months of 1950 continued at high levels, due principally, it appears, to the growing acceptance of air freight by industrial shippers.

Another gauge of air freight growth is presented in the report of a Manhattan-based air forwarder. This company began business on August 5, 1946. The revenues for that year were \$30,000. In 1947 the revenues were \$357,000, and in 1949, \$1,105,000. Income is reported to have reached a new high in March, 1950, and is still rising.

The most obvious advantage offered by air freight is the speed at which products can be delivered. Next in importance is special and expeditious handling. Emanating from these are many more specific advantages. For example, the economies from using air freight which may tend to offset its relatively high rates are faster turnover, wider distribution, elimination of warehouses, reduction in spoilage, smaller interest charges on investment while goods are in transit, more efficient use of working capital because of reduced inventories, and greater profits for both consignee and consignor where time and distance are factors in distribution. In addition, pilferage has been virtually eliminated in domestic air freight shipments.

Although interest among the container manufacturers is increasing, research in this field by progressive com-

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2½ to 6 days  
1½ to 4 days  
2½ to 6 days  
4½ to 9 days  
1½ to 4 days  
2½ to 6 days

tainer producers has hardly begun, principally because air transportation has not yet represented a sufficient volume to justify extensive expenditures for research and development. Therefore, it remains for the airlines themselves to take the lead in working with the shippers and the container manufacturers in developing suitable packaging.

To appreciate the reasons for the phenomenal growth of air freight, it might be advisable to compare air delivery time with surface delivery time. One of the larger air carriers has published the speed comparison schedule at the top of this page.

Speed, however, is not determined solely by how fast an airplane can travel but by the over-all elapsed time between pick-up from original consignor and delivery to the consignee. Surface delivery time, and the loading and unloading time, must be shortened. New devices are needed, and are now being developed, to reduce this ground time by speeding up loading and unloading operations. Pickup and delivery techniques are also being improved. Freight forwarding companies are moving into the air freight field.

Air cargo was frequently loaded and unloaded by hand in the early postwar period, but new devices have since been adopted to reduce handling time. Among these devices are portable belt conveyors, escalators, chutes and fork-lift trucks for loading and unloading, and roller systems for moving cargo within the plane.

Air freight is basically a less-than-carload-lot business; consequently, legible marking is of prime importance in maintaining high speed service. If the name of the addressee appears on two sides of the package much lost motion can be saved.

Although speed is the basic advantage of air freight, specialized service in the pick-up of commodities is an added inducement to shippers. The practice of picking up commodities at the close of each day's operation may be impractical in the case of air freight as an accumulation of shipments at the end of the day may create an airport bottleneck. In such cases, shipments are picked up during the day by a coordinated trucking service, or moved to air terminals by the consignor's own truck. This type of service has been a rapid builder of good will and has become

an integral part of the air freight merchandising program.

One of the more specific stimulants to the rapid growth of air freight is that new markets are being brought within the practical orbit of the shipper. With the use of air freight, markets for many products are limited only by the imagination and initiative of the seller. Air freight will transport almost any commodity to most of the larger cities all over the world. Timely or perishable articles can be transported to distant markets within a matter of hours. For example, heretofore the traditional method of distributing newspapers confined or limited the market to areas a few miles from the point of publication. Today, newspapers and other timely publications can appear simultaneously on news-stands in every section of the country—thanks to air freight. Similarly, this shipping method has brought Western markets two to five days nearer Eastern manufacturers. In addition to securing new sales outlets, rapid overnight delivery service on reorders makes



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air shipping desirable as an aid in holding seasonal markets.

Air freight not only opens new markets, but also presents the possibility of lower marketing costs and new merchandising practices. Lower costs are realized through reduced inventories, warehousing, mark-downs, etc. Changing merchandising methods always create new and stimulating advertising possibilities. Merchants have begun to capitalize on air freight in the presentation of their merchandise. Perishables have added value when tagged "Air-fresh with Airfreight." Likewise, fashion appeal has been stimulated when stylized merchandise such as coats, dresses, millinery, shoes, etc., have been airborne from fashion centers and appropriately noted by such labels as "Transported by Air."

Cost is a primary factor in selecting the method of transportation to be used. The differential in rates between air and other methods of transportation has been narrowing in recent years. Herein probably lies one of the fundamental reasons for the extremely rapid growth of the air freight industry. Moreover, as will be discussed, the use of air freight may permit reduction or even elimination of packaging costs.

A Detroit auto parts dealer is shipping regularly via air after he discovered that shipping commodities to the East Coast was less expensive due to reduced packaging requirements for small shipments. Also, a garment manufacturer experienced a saving by eliminating over-packaging, pressing time, etc., due to the specially constructed racks on which his commodities could be moved from the factory to the final destination. Air freight is building upon these types of regular repeat business, and emergency shipments are becoming less important.

Besides high rates, some of the principal disadvantages in shipping by air are inability to obtain direct air cargo service to many points; slow ground handling and delivery service on some occasions; lack of facilities at airports for warehousing and precooling; and unreliability of schedules in event of inclement weather.

Shipping costs for typical commodities transported 1,500 miles by air freight, as reported by one of the major air freight carriers, are:

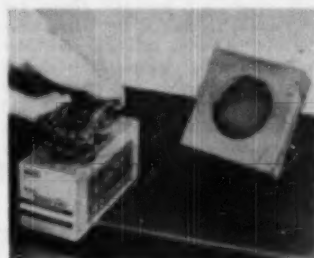
Pair of women's gloves (1 lb.)	\$ 1.16
Fur coat (5 lbs.)	.76
100 baby chicks (12 lbs.)	1.82
Typewriter (36 lbs.)	5.45
Spinach (prepared 10 oz. package is equivalent to 1.8 lbs.)	.89
Cat flowers (50 lbs.)	7.58
Woman's dress (1½ lbs.)	.23
Strawberries (11 lb. crate)	1.67
lobsters (1½ lbs. each)	.23
Newsreels (25 lb. can)	3.79

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Packaged wire coils

wrapping or protection, Inland inserts 25-pound coils into a heavy fibreboard shipping carton for use with the Inland Model D Wire Tying Machine.

When received the perforation is easily broken, exposing the loose end of the coil. The operator merely draws the wire

These air freight rates are determined on an airport-to-airport delivery, and do not include pick-up and delivery charges. Coordinated trucking facilities are frequently offered on a low-cost per hundred-pound basis.

A wide variety of cargo can be shipped by air. Some commodities, however, will not be accepted for carriage by air while others are prohibited, due to the nature of the product itself, unless special packaging is provided and clearance for air shipment is obtained. In these categories are such items as explosives, inflammables, acids, radium, radioactive or magnetic materials, small arms and ammunition, and other items which are considered hazardous to the carrier or to its personnel.

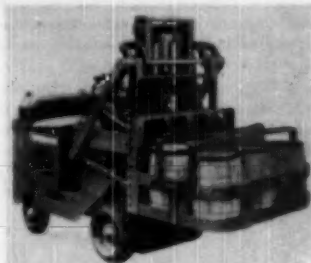
One airline official facetiously remarked that "we have probably flown every member of the animal kingdom except a live dinosaur." A representative of another air freight carrier said that they have carried such diverse items as goats, girdles, gorillas, dyna-

Editor's Note: This article is based on a recent report by the Office of Domestic Commerce in its *Containers and Packaging*.

out of the cartons as required. No tangling either.

**Robert Gair Company, Inc.**—Gair reports that Electric Auto Lite Company, Toledo, packs its line of automotive wire and cable in new Gair-designed packages called *Auto Lite Silver Line*. Each item is packed in a carton of silver foil printed in dark blue and red. Foil surface repeats oil and finger marks. The cartons are of Tuf-Eord, an extra-strong and rigid folding paperboard.

**Towmotor Corporation**—A half-dozen 200-pound kegs may be picked up, unloaded, stacked, or transported, without the use of a pallet. This is possible with



Six legs—no pallet

Towmotor's latest materials handling development—a guide frame mounted on an Unloader Accessory which may be lowered over the kegs. As the Unloader is retracted, the guide frame pulls the kegs against three rubber-covered shoes which project from the face of the carriage. Result: six kegs are held securely in position by the guide frame and firmly pressed against the shoes. Shoes and guide frame are easily detachable.

mos, ship parts, hand-made women's gloves, watches, handbags, and latest Paris fashions. Baby chicks by the hundreds of thousands travel the skyways. In this way, the problem created by the regulatory requirements of feeding every 72 hours is eliminated.

Products that lend themselves to air transportation include these four categories:

- Perishables, such as flowers, vegetables, and other produce.
- Emergency goods, such as drugs.
- "Style" and "timely" merchandise, such as clothing, newspapers, etc.
- Heavy goods, such as machinery, maintenance parts, etc.

Agriculture's principal interest in air transportation is in the speed with which the airplane can transport perishable products to distant markets, and in the opportunities provided for opening new markets for their surpluses. Air transport may permit the marketing of completely vine-ripened fruits and vegetables at premium prices.

(Concluded Next Month)



# FREE

The numbered paragraphs below correspond with the numbers appearing in the coupon at the bottom of this page. To order one or more pieces of literature at absolutely no charge to you, just encircle the corresponding number in the coupon, fill in the required information, and mail it in. Air Transportation will do the rest.

**1** A comprehensive and fully illustrated booklet, *Package Engineering*. Slanted toward the user, it nevertheless gives a detailed study of the technical aspects of corrugated box design. The book fills 24 pages and features 46 illustrations.

**2** *The Co-Pilot*, a free directory of Enso airports in 26 states. Contains such data as grades of aviation gas handled, class or size of fields, hours during which service can be expected, etc.

**3** New York State airport map and directory. Measures 20" x 21". Supplies all needed information concerning airports in that state.

**4** Reference file of air express uses. Put up in handy form. An excellent file for the progressive traffic man. Presents interesting case histories which should be of value.

**5** Periodic inspection record for maintenance of fire extinguishers. Certainly a handy chart for any firm with fire extinguishers on its premises. Don't forget: fire extinguishers are emergency equipment, and if they're not in working condition a lot of freight can go up in smoke.

**6** Sample back number of the *American Import & Export Bulletin*, giving news of developments in the foreign trade industry. Covers Customs, Commerce, Agriculture, Treasury, and State Departments thoroughly. Reports on changes in laws, rules, regulations, etc.

**7** Official Civil Aeronautics Board regulations of international air freight forwarders. Complete text, covering definition, classification and exemption, limitations and conditions, letters of registration, insurance, and general data.

**8** Official Maritime Commission regulations of freight forwarders (General Order 72). Text covers definition, registration, billing practices, consolidated shipments, special contracts, receipts, brokerage, etc.

**9** File-sized booklet designed and written for the purpose of taking the guesswork out of selecting and using corrugated and solid-fibre shipping cases. Includes the advantages, applications, composition, forms, properties, and sealing techniques of case sealing adhesives for hand or machine sealing operations. Illustrated.

**10** Rope reference chart which gives specifications on manila, nylon, and sisal ropes. Measures 17" x 22". It offers such data as rope diameter, circumference, approximate net weight per 100 feet, and working strength.

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## AIR FREIGHT FORWARDERS

**AIR CLEARANCE ASSOCIATION, INC.:** George Wohlrab, formerly with Globe Shipping Company, Inc., and Hensel, Brückmann and Lorbacher, Inc., has joined ACA as import manager. He has a quarter-century's experience in the industry. Wohlrab will be stationed at the firm's Idlewild office, 120-08 131st Street, South Ozone Park, New York.

Peter A. Bernacki: Bernacki has hailed the First United States International Fair at Chicago as a long step forward in emphasizing the importance of international trade to our economy. He said that the fair in the Windy City proved that Chicago, as an inland port, was sparking the Middle West to reach out for a bigger stake in the international movement of goods. A highly industrialized area and one of the key centers of the country, Chicago has become cognizant of the fact that it is only a few hours' distance from buyers and suppliers in Latin America, Europe, Africa, and the Near, Middle, and Far East.

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# AIR TRANSPORTATION Congratulates

## ★ EXECUTIVE ★

**Boeing**—John O. Yeasting, formerly assistant to the president, has been elected a vice president.

**Frank R. Hall & Co., Inc.**—Arne Finn succeeds the late Arthur J. Sullivan as president of this firm of insurance brokers and average adjusters. . . Edward S. Benfield has become chairman of the board.

**Italian Airlines-LAI**—Alfred de Lancellotti, who spent three decades in the service of Thomas Cook & Son, has taken over the post of general manager of the New York office. Claude E. Fusco, formerly with Pan Am and the Italian Steamship Line, is general traffic and sales manager.



Fusco



de Lancellotti

**Glenn L. Martin**—G. T. Willey, vice president-manufacturing, has become assistant general manager.

**Pan American**—John C. Leslie, vice president, has been made a member of the board. He also succeeds the late Howard B. Dean as vice president-administration. Assistant Leslie as deputy is Vice President Erwin Balluder.

## ★ CARGO ★

**Panagra**—Dr. Ernesto Caceras B. has taken over the post of air mail superintendent with offices in Lima. He formerly headed the International Service of the

General Administration of Postal and Telegraphic Communications of Peru, and is the author of two books on postal subjects.

**Trans-Canada**—Hugh W. Burgoyne, ex-cargo sales representative in Vancouver, has been shifted to Chicago where he heads TCA's cargo sales.

## ★ SALES ★ TRAFFIC

**Air France**—David Delaney has taken over the post of sales promotion manager, North American-Caribbean Division. . . Robert W. King succeeds Delaney as Eastern District traffic manager. . . Alfred de Cabrol, formerly manager in Colombia, takes over the top spot in Havana.

**Braniff**—Organizational changes have taken four in new key positions: John Long, Argentine manager; Don C. Grete, manager in Panama and Ecuador; Pedro A. Diaz, acting district traffic manager in Panama; and Paul Parsons, Jr., manager at Guayaquil.

**Eastern**—William L. Morrisette, Jr., has been named traffic-sales manager for the New England States.

**Flying Tiger**—Robert Fitzgerald has been appointed district sales manager at Hartford.

**KLM**—Herman R. Semmelink has been appointed representative for Canada. . . William deMier has been transferred to a new post in Europe.

**Northwest**—James N. Ravlin, formerly with American, named assistant to Vice President-Sales Amos Culbert. . . Duncan H. Taylor appointed city sales manager at Edmonton.

**Pan American**—James Fulton Montgomery now serving as district traffic and sales manager in the United Kingdom.

**Sabena**—Robert Bonnaventure, ex-Brussels, now representing the line at Gander. . . James Haggins has been added to the traffic staff in New York.

**Swissair**—H. Victor Baertschi has joined the passenger relations department in New York, specializing in travel agency relations.

**TWA**—John G. Hearne has been appointed sales promotion manager for the Middle and Far East, and Philippe Brunswick has been named manager for the European region.

**Western**—Keith Jones has been pro-

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## MAILBAG MEMOS (Continued from Page 4)

"Your editorial is grand. It is one of the best things I have seen."

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## Satisfied Readers

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C. A. Schuyler  
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National Aircraft Company  
New York, New York

"I like to keep up on all new developments pertaining to transportation, particularly air, and for your information I have all the copies of AIR TRANSPORTATION since it was born in 1945, and if more of the traffic man were to take this magazine their education in traffic would be broadened a great deal. To me it is better than any novel or book ever printed."

Harry Cotterell  
Newark, New Jersey

## Air Mail

"The all mail article in your July issue (Bottleneck on the Ground) hit the spot. The other day I received an air mail letter from Boston four days after the postmark on the envelope. An ordinary three-cent letter used to do better."

Raymond L. Lantz  
Flint, Michigan

moted to the position of Los Angeles district sales manager.

## ★ MISCELLANEOUS ★

**Aviation Division, Transportation Section, New York Board of Trade**—Newly elected officers are: George G. Hughes, Shell Oil Company, chairman; James A. Leftwich, vice chairman; John C. Emery, Sr., Emery Air Freight Corporation, treasurer; Henry A. Abrams, MacPeak and Abrams, general counsel; and A. J. Barnaud, New York Board of Trade, executive secretary.

**Frank R. Brine, Advertising**—Formerly ad manager for The Babb Company, Brine has organized his own firm with offices at 270 Park Avenue, New York.

**National Air Council**—Charles D. Frazer, formerly executive secretary and assistant treasurer, has been named executive vice president.

**National Packaging Exposition**—Robert D. Handley, advertising manager, Sylvania Division, American Viscose Corporation, has been appointed chairman of the Exhibitors' Advisory Committee, 20th National Packaging Exposition.

**Society of Industrial Packaging and Materials Handling Engineers**—The following have been elected division presidents of the SIPMHE: Winfield S. Hassler, Curtiss Candy Company (Illinois Division); Robert M. Hindman, Croley Division, Aveco Manufacturing Corporation (Miami Valley Division, reelected); Milton A. Oonk, Sietoff Packing Company (Missouri Division); F. F. Holt, Birmingham, Michigan (Michigan Division); A. M. Lowensbury, Railway Warehouses, Inc. (Northeastern Ohio Division); and Frederick R. Christian, Lockheed Aircraft Corporation (Southern California Division).

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# AIR SHIPPING ★ ★ ★

[REG. U. S. PAT. OFF.]

## International Cargo Rates (including U. S. possessions and territories)

Air cargo rates quoted are based on prevailing tariffs, airport to airport (see note).  
Shippers are warned, however, that these rates are subject to change.

All international rates are quoted on an airport-to-airport basis, with the packing and delivery charges wholly apart. Air carriers whose schedules and rates are included here are indicated by the letter following the airport symbol (see below).

### AIRPORT SYMBOLS

EDF—Aachen	MDN—Montreal
GAL—Baltimore	MEX—Mexico City
BGR—Bangor, Me.	MIA—Miami
BUI—Baltimore, Md.	MKE—Milwaukee
BOS—Boston	MPS—Massachusetts, St. Paul
BVO—Brossville, Tex.	MOB—Mobile
BTU—Burlington, Vt.	UL—Munich
CVS—Charleston, S. C.	MSY—New Orleans
CHI—Chicago	LGA—New York (La Guardia)
CLE—Cleveland	IDL—New York (Idlewild)
CNP—Corydon, Christ, Tex.	EWB—Newark
CTB—Cot Bank, Mont.	ORF—Norfolk
DAL—Dallas	MLD—New Mexico, Mex.
DEN—Denver	OAK—Oakland, Cal.
YIP—Detroit	PWK—Pawtucket, R.I.
DLH—Duluth	PIA—Pittsburgh
ELD—El Dorado, Ark.	PHL—Philadelphia
ELP—El Paso	PTT—Portland
EVV—Evansville, Ind.	POR—Portland, Or.
FWA—Fort Wayne, Ind.	PVD—Providence
FTW—Fort Worth	QY—Quincy, N. S.
GFK—Grand Forks, N. D.	SLC—Salt Lake City
GRW—Greenwood, Miss.	STL—St. Louis
HOL—Hartford	SAT—San Antonio
HAV—Havana	SFO—San Francisco
HOT—Hot Springs, Ark.	SEA—Seattle
MDU—Houston	SNY—Smyrna, La.
HJB—Huntsville	GEO—Spokane, Wash.
IND—Indianapolis	SPF—Springfield, Mo.
JAN—Jackson, Miss.	TPA—Tampa
JAX—Jacksonville	MUP—Tampa, Fla.
KMG—Kansas City, Mo.	TOL—Toledo, Ohio
SLN—Kingston, Jam.	YTO—Toronto, Ont.
LRO—Laredo	VAC—Vancouver, B. C.
LIT—Little Rock, Ark.	DCA—Washington, D. C.
LAX—Los Angeles	

### AIRLINE SYMBOLS

AF—Air France
A—American Airlines
AO—American Overseas
B—British International Airways
BC—British Commonwealth Pacific Airlines
BO—British Overseas Airways Corp.
CS—Chicago & Southern Air Lines
C—Colonial Airlines
E—Eastern Airlines
EA—Eastern Air Lines International
K—KLM Royal Dutch Airlines

- L—Lunas Aeronave Mexicana (LAMSA)
- LV—Lunas Aeronave Venezolana
- N—National Airlines
- NE—Northwest Airlines
- NW—Northwest Airlines
- P—Pan American World Airways and Affiliates
- PH—Philippine Air Lines
- S—Sahara
- SS—Scandinavian Airlines System
- SW—Swedish & Western
- SK—Scandinavian Airways
- SR—Swissair
- TA—TACA Airways
- T—Trans-Canada Air Lines
- TR—Transamerica Air Lines
- TW—Trans World Airlines
- U—United Air Lines
- W—Western Air Lines

### SPECIAL NOTES

COMMODITY RATES: Apply to airlines.  
AD: Valuation charge is applicable only on shipments with a valuation of over \$7.45 per pound. Minimum charge is as for 2 kilos (4.4 lb.).

E: Valuation charge is applicable only on shipments to equal to or more than \$7.45 per pound. Minimum shipment 6 pounds.

K: Valuation charge is only on shipments with a declared valuation in excess of \$7.71 per lb.

L: Shipments of less than 22 lb. are sent air express.

P: Valuation charge is only on shipments with a declared valuation in excess of \$7.71 per lb.

PH: To any destination in the Philippines served from Manila by PAL (where routing is via PAL from San Francisco), add 10¢ per pound to rates shown as applying to Manila.

SK: Lower rates for cargo of 2,000 lb. gross weight and over. Floorload service minimum is 15,000 lb. Minimum weight charge of \$2 on all shipments.

TC: Special rates for shipments of 100-500 lb. and 1,000 lb. and over.

T: More economical rates are offered for bulk cargo. There is a base rate for cargo 25 pounds and less, between 25 pounds and 100 pounds, and over 100 pounds. Consult the airline direct.

### RATE SYMBOLS

- \* This involves onward carriage by another airline.
- \*\* For \$110 (Canadian Currency) value, pro-rata.
- Minimum charge for this shipment is that for 25 lb.
- † Rate of 25 lb. or less.
- ‡ Minimum weight 50 lb.
- § Floorload service only.
- ¶ Per hundredweight.
- Consult airline for lower rates applicable to 3,500 lb. and over.
- ◊ Consult airline for charges under 100 lb. shipments.
- ◊ Daily freighter service.
- to: Trunk to Miami.
- c: Canadian Currency.

Destination	Airport and Airline	RATES (See Note)					Depart
		100	250	500	1,000	2,000	
Amsterdam, Can/M	YIP U*	41	54	15	Dly		
"	LAX U*	30	35	15	Dly		
"	MKE U*	30	32	15	Dly		
"	LGA U*	30	32	15	Dly		
"	OAK U*	30	32	15	Dly		
"	PHL U*	45	30	15	Dly		
"	PDX U*	20	10	15	Dly		
"	SLC U*	30	32	15	Dly		
"	SFO U*	30	32	15	Dly		
"	DCA U*	45	30	15	Dly		
Antigua, B.W.I.	LGA U*	34	34	15	M.T.F.		
"	MIA U*	35	15	15	M.T.F.		
Antilla, Cuba	MIA U*	30	15	15	Dly		
Antigua, Chile	MIA U*	1.15	41	30	M.T.F.		
"	MSY U*	1.10	40	30	M.T.F.		
"	HOU U*	1.22	71	30	M.T.F.		
"	MDU U*	1.25	71	30	M.T.F.		
"	LAX U*	1.25	65	30	M.T.F.		
"	LGA U*	1.25	70	30	M.T.F.		
Antwerp, Belgium	IDL AO*	1.07	190	30	W.F.		
Araucaria, Brazil	LGA U*	1.25	20	30	W.F.		
"	MIA U*	1.25	20	30	W.F.		
"	MSY U*	1.25	140	30	W.F.		
"	HOU U*	1.05	140	30	T.T.F.		
"	MDU U*	1.25	140	30	T.T.F.		
"	LAX U*	1.25	140	30	T.T.F.		
Araucaria, Peru	MIA U*	1.00	40	30	M.W.F.		
"	MSY U*	1.05	40	30	M.W.F.		
"	HOU U*	1.05	40	30	M.W.F.		
"	MDU U*	1.05	40	30	M.W.F.		
"	LAX U*	1.25	77	30	M.W.F.		
Arica, Chile	MIA U*	1.05	47	30	M.F.		
"	HOU U*	1.15	67	30	M.F.		
"	MDU U*	1.15	67	30	M.F.		
"	LAX U*	1.25	81	30	M.F.		
Araucaria, Colombia	MIA U*	1.05	40	30	T.T.F.		
"	HOU U*	1.05	40	30	T.T.F.		
"	MDU U*	1.05	40	30	T.T.F.		
"	LAX U*	1.25	81	30	T.T.F.		
"	BUJ U*	1.15	39	15	T.T.F.		
"	CHI U*	1.15	41	15	T.T.F.		
"	YIP U*	1.15	41	15	T.T.F.		
"	ELD U*	1.15	41	15	T.T.F.		
"	RVV U*	1.15	41	15	T.T.F.		
"	FWA U*	1.15	41	15	T.T.F.		
"	GRW U*	1.15	41	15	T.T.F.		
"	BOT U*	1.15	41	15	T.T.F.		
"	HOU U*	1.15	41	15	T.T.F.		
"	IND U*	1.15	41	15	T.T.F.		
"	JAN U*	1.15	41	15	T.T.F.		
"	LIT U*	1.15	41	15	T.T.F.		
"	MEM U*	1.15	41	15	T.T.F.		
"	MSY U*	1.15	41	15	T.T.F.		
"	PWK U*	1.15	41	15	T.T.F.		
"	PIA U*	1.15	41	15	T.T.F.		
"	PTL U*	1.15	41	15	T.T.F.		
"	SHV U*	1.15	41	15	T.T.F.		
"	SLC U*	1.15	41	15	T.T.F.		
"	TOL U*	1.15	41	15	T.T.F.		
"	MIA U*	1.15	41	15	T.T.F.		
Araucaria, N.W.I.	IDL AO*	1.70	1,340	25	Dly		
Araucaria, Eritrea	BOB AO*	1.75	1,320	25	Dly		
"	IDL BO	1.74	1,31	25	M.T.T.F.		
Araucaria, Paraguay	LGA U*	1.47	83	25	T.F.		
"	MIA U*	1.20	77	25	T.F.		
"	MSY U*	1.45	94	25	T.F.		
"	HOU U*	1.45	87	25	W.F.		
"	PRO U*	1.45	87	25	W.F.		
"	LAX U*	1.45	1,01	25	W.F.		
"	PRO U*	1.45	90	15	T.F.		
"	CHI U*	1.45	90	15	T.F.		
"	CRP U*	1.45	87	15	T.F.		
"	DAL U*	1.45	80	15	T.F.		
"	YIP U*	1.45	80	15	T.F.		
"	FTW U*	1.45	80	15	T.F.		
"	HAV U*	1.45	80	15	T.F.		
"	IND U*	1.45	87	15	T.F.		
"	LAX U*	1.45	80	15	T.F.		
"	MDU U*	1.45	80	15	T.F.		
"	RAT U*	1.45	80	15	T.F.		
"	FWA U*	1.45	80	15	T.F.		
Araucaria, Greece	IDL AO*	1.44	1,00	25	Dly		
"	IDL SA	1.57	1.11	25	Dly		
"	LGA U*	1.44	1,00	25	Dly		
"	HOU U*	1.44	1,00	25	Dly		
"	IND U*	1.44	1,00	25	Dly		
"	IDL AF	1.44	1,00	25	Dly		
"	BOB U*	1.41	1,00	25	Dly		
"	IDL K	1.44	1,00	25	Dly		
"	IDL K	1.44	1,00	25	Dly		
"	IDL K	1.44	1,00	25	Dly		
"	LGA U*	1.44	1,00	25	Dly		

Destination	Airport and Airline	RATES (See Note)					Depart
		100	250	500	1,000	2,000	
Aalborg, Denmark	IDL AO*	1.17	425	30	Su.T		
"	IDL SS	1.17	38	30	Dly		
Aarhus, Denmark	IDL SS	1.15	37	30	Dly		
"	IDL AO*	1.15	380	30	Su.T		
Abadan, Iran	IDL BO	1.73	1.33	25	M.T.T.F.		
"	IDL AO*	1.73	1.33	25	M.T.T.F.		
"	IDL AO*	1.73	1.33	25	M.T.T.F.		
"	IDL RR	1.73	1.33	25	Su.W.F.		
Abidjan, Ivory Coast	IDL AF	1.45	1.22	25	M.M.W.T.F.		
"	BOB AF	1.45	1.22	25	T.T.F.		
Aha, Finland	IDL AO*	1.21	91	30	Dly		
"	IDL AO*	4.20	1,000	30	Su.T.F.		
"	BOB AO*	1.17	380	30	Su.T.F.		
Akra, Br. Gold Coast	LGA P	1.54	1.10	25	M.T.F.		
"	BOB P	1.54	1.14	25	M.T.F.		
"	IDL BO	1.54	1.10	25	M.T.T.F.		
"	IDL AF	1.62	1.22	25	M.T.F.		
"	BOB AF	1.59	1.20	25	M.T.F.		
"	BOB AO*	1.77	1.33	25	W.F.		
"	IDL AO*	1.40	1.33	25	Dly		
Addis Ababa, Ethiopia	IDL AO*	1.90	1,400	30	Dly		
"	BOB AO*	1.90	1,475	30	W.F.		
"	IDL BO	1.89	1.41	25	M.M.T.T.F.		
"	LGA TW*	1.85	1.39	25	M.T.F.		
Aden, Aden	IDL AO*	1.92	1,44	25	Dly		
"	BOB AO*	1.92	1.42	25	W.F.		
"	IDL BO	1.81	1.36	25	M.M.T.T.F.		
Alameda, India	IDL AO*	2.04	1,532	30	Dly		
"	LGA P	2.05	1.54	25	Dly		
"	BOB P	2.05	1.52	25	Dly		

Destination	Airport and Airline	RATES (See Note)					Depart
		100	250	500	1,000	2,000	
Aden, Ethiopia	IDL S	1.85	1.42	25	T.T.F.		
Aden, Egypt	IDL BO	1.55	1.17	25	Su.M.T.T.F.		
"	IDL AO*	1.55	1.15	25	Dly		
Algiers, Algeria	LGA TW	1.90	90	25	W		
"	IDL AO*	1.31	377	25	Dly		
"	IDL AF	1.27	84	25	Dly		
"	BOB AF	1.24	94	25	Dly		
"	CHI U*	1.31	1.01	25	Su		
"	YIP U*	1.28	7.6	25	Su		
"	LAX U*	1.31	1.18	25	Dly		
"	SFO U*	1.32	1.18	25	Dly		
"	OAK U*	1.32	1.18	25	Dly		
Amst., Netherlands	IDL AO	1.05	79	30	M.W.F.		
"	BOB AO*	1.02	77	30	Dly		
"	IDL E	1.05	79	30	T.W.T.F.		
"	LGA TR	1.05	71	125	Dly		
"	RFD TR	1.05	71	125	Dly		
"	IDL BO	1.05	79	30	Dly		
"	BOB P	1.05	79	30	Su.M.W.F.		
"	IDL AF	1.05	79	30	Dly		
"	BOB AF	1.05	77	30	Dly		
"	IDL E	1.05	79	30	Su.W		
"	UL K	1.05	80	25	W		
Anchorage, Alaska	REC P	45	18	15	Dly		
"	REC NW	25	10	15	Dly		
"	MPS NW	25	10	15	Dly		
"	OAK TR	41	39	15	Dly		
"	BOB U*	40	18	15	Dly		
"	CHI U*	39	23	15	Dly		
"	CLE U*	43	25	15	Dly		
"	DEN U*	33	30	15	Dly		

## INTERNATIONAL COMMODITY TABLES—Continued

RATES (See Note)										RATES (See Note)										RATES (See Note)									
Destination	Airport and Airlines	1st	2nd	3rd	4th	5th	6th	7th	8th	Destination	Airport and Airlines	1st	2nd	3rd	4th	5th	6th	7th	8th	Destination	Airport and Airlines	1st	2nd	3rd	4th	5th	6th	7th	8th
Athens, Con'd	DCA TW	1.46	1.11	35						Buenos Aires, Con'd	BOA P	1.70	1.30	35						Buenos Aires, Con'd	IDL AF	1.73	1.30	35					
"	CHI TW	1.60	1.13	35						"	CHI P	1.77	1.35	35						"	BOA AF	1.70	1.30	35					
"	PHL TW	1.65	1.10	35						"	YIP P	1.74	1.30	35						"	BOA AO*	1.93	1.45	35					
"	BOS TW	1.65	1.10	35						"	LAX P	1.97	1.40	35						"	IDL AO*	1.94	1.47	35					
"	YIP TW	1.46	1.10	35						"	SFO P	1.98	1.41	35						"	IDL SS	1.16	85	35					
"	IDL S	1.44	1.05	35						"	OAK P	1.98	1.41	35						"	IDL AO*	1.32	915	35					
"	PHL S	1.44	1.05	35						Buenos Aires, Con'd	MIA P	1.60	95	Dy						Buenos Aires, Con'd	IDL AO*	1.32	915	35					
"	BOS S	1.44	1.05	35						Buenos Aires, Con'd	IDL AO*	1.55	1.14	35						Buenos Aires, Con'd	BOA AO*	1.30	911	35					
"	YIP S	1.46	1.10	35						Buenos Aires, Con'd	IDL AF	1.55	1.17	35						Buenos Aires, Con'd	BOA P	1.68	77	35					
"	LAX P	1.68	1.27	35						Buenos Aires, Con'd	IDL AF	1.52	1.15	35						Buenos Aires, Con'd	IDL AF	1.65	70	35					
"	SFO P	1.68	1.27	35						Buenos Aires, Con'd	LGA P	1.52	1.15	35						Buenos Aires, Con'd	LGA TR	1.65	70	35					
"	OAK P	1.68	1.27	35						Buenos Aires, Con'd	BOA P	1.52	1.15	35						Buenos Aires, Con'd	RFD TR	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	LGA P	1.52	1.15	35						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	MIA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	MSY P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	BOS P	1.41	1.04	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
Amsterdam, N.E.	LAX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	PDX P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	SFO P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"	OAK P	1.75	1.32	35						Buenos Aires, Con'd	BOA P	1.54	95	Dy						Buenos Aires, Con'd	IDL SW	1.65	70	35					
"																													



INTERNATIONAL CARGO TABLES - Continued

RATES (See Note)							RATES (See Note)							RATES (See Note)						
Destination	Airport and Airline	1	2	3	4	5	Destination	Airport and Airline	1	2	3	4	5	Destination	Airport and Airline	1	2	3	4	5
		1	2	3	4	5			1	2	3	4	5			1	2	3	4	5
Cal. Cont'd.	LGA P	64	27	20	20	20	Capitola, Calif.	IDL S	1.00	1.02	30	T, W, Th, Sa	East London, U. of So. Africa	IDL BO	2.10	1.03	30	So, M, T, Th, F		
"	MSY P	40	25	20	20	20	"	BOC P	1.00	70	15	F	"	MIA P	47	00	10	T		
"	BRO P	40	25	20	20	20	Cordoba, Argentina	MSY P	1.42	30	15	F	Edmonton, Alberta, Canada	LGA T	8.20	31	10	Dly		
"	LAX P	70	30	20	20	20	"	BOC P	1.42	30	15	Th	"	CTB W	10	10	10	Dly		
Camaguey, Cuba	MIA P	12	00	000	000	000	"	LAX P	1.42	30	15	Th	Kinders, Netherlands	IDL AO*	1.04	700	20	Dly		
Camaguey, Matanzas	MIA P	20	14	13	13	13	Casimirovitz, Belgium Congo	IDL S	1.00	1.00	15	Th	Kinders, Netherlands	BOC AO*	1.04	770	20	W, F		
"	MSY P	20	13	13	13	13	"	IDL S	1.00	1.00	15	Th	Kinders, Netherlands	IDL AO*	1.02	1.44	20	Dly		
"	BRO P	30	22	15	15	15	Casual Bona	MIA P	41	21	15	Dly	Kinders, Netherlands	IDL S	1.00	1.44	20	Dly		
"	BOC P	30	22	15	15	15	"	BOC P	40	21	15	Dly	Kinders, Netherlands	IDL S	1.00	1.44	20	Dly		
"	LAX P	44	20	15	15	15	Casaca, N.W.I.	MIA P	40	20	15	Dly	Kinders, Netherlands	MIA P	47	00	10	T		
Cancun, San. Mex.	MEX L	14	10	10	10	10	"	LAX P	40	20	15	Dly	Kinders, Netherlands	MSY P	70	40	15	T		
Cancun, France	IDL AF	1.10	00	20	20	20	Castilla, Brazil	BOC P	40	20	15	Dly	Kinders, Netherlands	BOC P	70	40	15	M		
"	BOC AF	1.12	00	20	20	20	"	MSY P	40	20	15	Dly	Kinders, Netherlands	LAX P	80	00	20	M		
Canton Island	LAX P	1.20	00	20	20	20	Casaca, N.W.I.	LAX P	40	20	15	Dly	Kinders, Netherlands	SEC P	40	15	15	Dly		
"	SEC P	1.20	00	20	20	20	Castilla, Brazil	MIA P	1.00	1.00	20	F	Kinders, Netherlands	OAK TR	40	15	15	Dly		
Cape Maudslayi (Newfoundland)	IDL AO*	1.00	1.42	30	30	30	Casaca, N.W.I.	MIA P	1.00	1.00	20	F	Kinders, Netherlands	LGA P	1.70	20	20	Dly except Th		
Cape Town, U. S. A.	LGA BO	2.20	1.00	30	30	30	Casaca, N.W.I.	MSY P	1.00	1.00	20	F	Kinders, Netherlands	MIA P	1.44	1.00	20	Dly except Th		
Cape Town, Venezuela (See La Guayra)	LGA BO	2.20	1.00	30	30	30	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands	MSY P	1.64	1.04	20	Dly except Th		
Cartagena, Venezuela (See La Guayra)							Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands	BOC P	1.75	1.75	20	Dly except W		
Cartagena, Colombia	MIA P	44	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands	LAX P	2.00	2.00	20	Dly		
"	LGA P	40	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MSY P	40	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC P	40	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	LAX P	40	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Casablanca, Morocco	BOC AF	1.27	00	25	25	25	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	IDL AF	1.20	0.04	25	25	25	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	IDL AO*	1.20	0.04	25	25	25	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Casablanca, Libya	IDL AO*	1.25	0.01	25	25	25	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC AO*	1.22	0.01	25	25	25	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Casablanca, Italy	IDL AO*	1.22	0.01	25	25	25	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC AO*	1.20	0.01	25	25	25	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Cayman, Fr. Guinea	LGA P	70	42	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MSY P	60	40	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC P	70	46	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	LAX P	70	46	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Cayo Maudslayi, Cuba	MIA P	15	12	05	05	05	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Chetumal, Mexico	MSY P	28	10	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC P	30	10	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BRO P	30	10	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	LAX P	47	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Chiliman, Chile	MEX L	12	11	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Chiliman, Mexico	IDL AO*	1.10	0.25	20	20	20	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Chiliman, Norway	BOC AO*	1.12	0.25	20	20	20	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	IDL K*	1.12	0.25	20	20	20	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	UL K	1.12	0.25	20	20	20	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
C. del Carmen, Mexico	MIA P	31	10	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MSY P	27	10	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BRO P	20	10	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	LAX P	41	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Ciudad Juarez, Chih. Mex.	MEX L	10	14	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Ciudad Trujillo, D. R.	LGA P	20	21	05	05	05	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MIA P	15	12	05	05	05	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MIA K	15	12	05	05	05	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC SW*	See Note SE					Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MSY SW*	See Note SE					Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Ciudad Victoria, Mexico	DAL B	20	20	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	PTW B	20	20	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	SAT B	20	20	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	LBD B	16	10	10	10	10	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Cochabamba, Bolivia	MIA P	1.12	01	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MSY P	1.10	00	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC P	1.22	01	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BRO P	1.22	01	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	LAX P	1.20	00	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Colombia, Any Destination other than those named herein							Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MIA P	45	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MSY P	71	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC P	74	40	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BRO P	74	40	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	LAX P	80	20	15	15	15	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
Colombia, Ceylon	IDL AO*	2.10	1.00	30	30	30	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	IDL BO	2.15	1.00	30	30	30	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MIA P	1.10	00	20	20	20	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	MSY P	1.22	01	20	20	20	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							
"	BOC P	1.22	01	20	20	20	Casaca, N.W.I.	BOC P	1.75	1.75	20	Th	Kinders, Netherlands							

**INTERNATIONAL CARGO TABLES -- Continued**

RATES (See Note)					RATES (See Note)					RATES (See Note)							
Destination	Alphabet and Airline	40	50	60	Depart	Destination	Alphabet and Airline	40	50	60	Depart	Destination	Alphabet and Airline	40	50	60	Depart
Glasgow, Cent'd.	LGA TR	70	80	90		Havana, Cent'd.	MOR NA	12	10	10	Day	Iquitos, Peru	LGA P	1.75	1.75	20	
	SFO TR	70	80	90			GRU NA	12	10	10	Day		MIA P	1.51	1.51	20	
	LGA BO	60	70	80	Se, M, T, Th, F		SAV NA	12	10	10	Day		MSY P	1.69	1.69	20	
	IDL BO	60	70	80	Day		SWR NA	12	10	10	Day		BOU P	1.60	1.60	20	
	IDL AF	1.00	1.00	1.00			PHL NA	12	10	10	Day		LAX P	1.54	1.54	20	
	IDL AF	1.00	1.00	1.00			CHI B	20	20	18	Se, T, Th, Sa		MIA P	1.51	1.51	20	
	IDL K	1.00	1.00	1.00			CRP B	20	17	18	Se, T, Th, Sa		LGA P	1.75	1.75	20	
	CHI T	1.00	1.00	1.00	Se, Th, Sa		DAL B	19	19	18	Se, T, Th, Sa		MSY P	1.71	1.71	20	
	CHI C	1.00	1.00	1.00			FTW B	19	19	18	Se, T, Th, Sa		BOU P	1.74	1.74	20	
	YIP C	1.00	1.00	1.00			ROT B	18	18	18	Se, T, Th, Sa		LAX P	1.57	1.57	20	
Gottsborg, Sweden	IDL AO*	1.10	1.10	1.10		Helsinki, Finland	IDL AO	1.24	1.24	1.24	Se, T, Th, Sa	Istanbul, Turkey	IDL S	1.40	1.40	20	T, W, Th, Sa
	IDL BO	1.12	1.12	1.12	Day		BOB AO	1.21	1.21	1.21	Se, Th, Sa		IDL K	1.55	1.55	20	Th
	IDL AF	1.12	1.12	1.12			IDL SO	1.24	1.24	1.24	Se, Th, Sa		BOB AF	1.51	1.51	20	Se, W
	BOB AF	1.09	1.09	1.09		Hermosillo, Mexico	LAX P	1.18	1.18	1.18	Day		IDL AF	1.51	1.51	20	
Guatemala, Mex.	BOU P	1.07	1.07	1.07	Day		MIA P	1.18	1.18	1.18	Day		IDL AO*	1.51	1.51	20	Se, M, W, F
	BOU P	1.07	1.07	1.07	Day	Houston, Tex.	LGA P	1.77	1.77	1.77	Day		IDL BO	1.51	1.51	20	Se, W, F
	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day		IDL K	2.41	2.41	20	Se, T, Th, F
	LAX P	1.07	1.07	1.07	Day	Hualapilla, Mexico	LGA P	1.77	1.77	1.77	Day		IDL BO	1.51	1.51	20	Se, T, Th, F
Guatemala, Cuba	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day	Jaipur, India	IDL AO*	2.04	2.04	20	Se, M, T, Th, F
	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day		IDL BO	2.04	2.04	20	Se, M, T, Th, F
	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day		IDL K	2.41	2.41	20	Se, M, T, Th, F
	LAX P	1.07	1.07	1.07	Day	Hualapilla, Mexico	LGA P	1.77	1.77	1.77	Day		IDL BO	2.04	2.04	20	Se, M, T, Th, F
Guatemala, Cuba	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day	Jerusalem, Israel	IDL AO*	1.00	1.00	20	Day
	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day		IDL TW	1.57	1.57	20	Se, T, F
	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day		IDL TW	1.57	1.57	20	Se, T, F
	LAX P	1.07	1.07	1.07	Day		BOB P	1.77	1.77	1.77	Day		IDL TW	1.57	1.57	20	Se, T, F

## INTERNATIONAL CARGO TABLES — Continued

[illegible]

## INTERNATIONAL CARGO TABLE—Continued

RATES (See Note)										RATES (See Note)										RATES (See Note)									
Destination	Airport and Airline	1	2	3	4	5	Destination	Airport and Airline	1	2	3	4	5	Destination	Airport and Airline	1	2	3	4	5									
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Colombia	MIA P*	51	35	15	Fly		Quincy, Mexico	MIA P*	51	35	15	Day										
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	DAL A	15	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	ELP A	15	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	LAX A	15	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	RAY P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	RLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day																								
Mexico, Cont'd.	LAX U*	2.50	1.77	35	Day		Monterrey, Mexico	SLD P	55	35	15	Day																	
	SFO U*	2.30	1.77	35	Day									</															



## INTERNATIONAL CARGO TABLES—Continued

GATES (See Note)										GATES (See Note)										GATES (See Note)										
Destination	Aircraft	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Destination	Aircraft	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Destination	Aircraft	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude	Altitude
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Paris, Cont'd.	DCA	TW	1.07	52	30																									
"	VIP	TW	1.06	51	20	F																								
"	CHI	TW	1.05	50	10	F																								
"	IDL	TW	1.04	49	20	F																								
"	BOS	TW	1.04	48	30	F																								
"	LOA	TW	1.04	47	20	Tu																								
"	BOC	TW	1.04	46	30	Tu																								
"	CHI	TW	1.04	45	40	Tu																								
"	VIP	TW	1.04	44	50	Tu																								
"	LAX	TW	1.04	43	50	Tu																								
"	BOC	TW	1.04	42	50	Tu																								
"	OAK	TW	1.04	41	50	Tu																								
Portofino, Brazil.	LOA	TW	1.04	40	50	Tu																								
"	MIA	TW	1.04	39	50	Tu																								
"	BOC	TW	1.04	38	50	Tu																								
"	BOC	TW	1.04	37	50	Tu																								
"	BRO	TW	1.04	36	50	Tu																								
"	LAX	TW	1.04	35	50	Tu																								
Porto, Chile, Mex.	MEX	TW	1.04																											
Porto, Colombia.	LOA	TW	1.04																											
"	MIA	TW	1.04																											
"	BOC	TW	1.04																											
"	BOC	TW	1.04																											
"	BRO	TW	1.04																											
"	LAX	TW	1.04																											
Porto, Italy.	IDL	SW	1.04																											
Porto, Mexico, Guad.	LOA	TW	1.04																											
Porto, Colombia.	LOA	TW	1.04																											
"	MIA	TW	1.04																											
"	BOC	TW	1.04																											
"	BRO	TW	1.04																											
"	LAX	TW	1.04																											
Porto, France.	IDL	SW	1.04																											
Porto, Mexico, Guad.	LOA	TW	1.04																											
Porto, Colombia.	LOA	TW	1.04																											
"	MIA	TW	1.04																											
"	BOC	TW	1.04																											
"	BRO	TW	1.04																											
"	LAX	TW	1.04																											
Porto, Mexico, Guad.	LOA	TW	1.04																											
Porto, Colombia.	LOA	TW	1.04																											
"	MIA	TW	1.04																											
"	BOC	TW	1.04																											
"	BRO	TW	1.04																											
"	LAX	TW	1.04																											
Porto, Mexico, Guad.	LOA	TW	1.04																											
Porto, Colombia.	LOA	TW	1.04																											
"	MIA	TW	1.04																											
"	BOC	TW	1.04																											
"	BRO	TW	1.04																											
"	LAX	TW	1.04														</													

## INTERNATIONAL CARGO TABLES—Continued

[illegible]

International Air Cargo Rates are a standard feature in AIR TRANSPORTATION. This is another typical service for air shippers who require up-to-the-minute data. The rates appearing in this issue were current at presstime.

# Compare!

## AIR TRANSPORTATION QUARTERLY CIRCULATION REPORT

(Period of April-June, 1950)

APRIL .....	8,029 copies
MAY .....	8,040 copies
JUNE .....	8,100 copies
AVERAGE FOR 3 MONTHS .....	8,056 copies

### CIRCULATION BREAKDOWN

(Based on June, 1950 Issue)

Shippers (manufacturers, freight forwarders, traffic managers, exporters, importers, buyers, wholesalers, retailers, etc.) .....	6,167
Airlines (various departments, executives, key personnel, etc.) .....	559
Aircraft and equipment manufacturers, sales and service .....	65
Military .....	83
Banking organizations .....	8
Insurance organizations .....	31
Trade organizations, chambers of commerce, etc. ....	115
U. S. federal, state, and municipal departments .....	280
Foreign governments .....	55
Colleges, universities, students, etc. ....	215
Public and business libraries .....	58
Advertising agencies, public relations firms, exchanges .....	91
Newspapers, news agencies, magazines, etc. ....	17
Miscellaneous subscriptions .....	112
Office files, samples, over-counter sales .....	244
TOTAL .....	8,100

I hereby make oath and say that the above statement is true, and that Printer's Invoice and Post Office Statement are available.

Subscribed and sworn to before me this 27th day of June, 1950.

Richard Malkin, Managing Editor  
Gertrude E. Smizer, Notary Public

Case History: E. R. SQUIBB & SONS

**"Three big reasons why we  
are shipping more and more  
merchandise via Air Freight!"**

"Squibb uses air freight primarily because it offers us:

- 1 Speed.** We can replenish inventories of essential drugs so fast by air freight, our distributors can carry lower stocks... release capital.
- 2 Better handling.** Air freight eliminates the need for much costly packaging; yet breakage is reduced to a minimum.

- 3 Ease of distribution.** Air freight permits us to serve markets throughout the world in a matter of hours and days that otherwise would take weeks."

The House of Squibb is just one of the many aggressive firms which today are expanding and serving markets through the increased use of air freight.

It may pay you handsomely in time and money saved to investigate the many advantages of shipping this fast modern way.

Today leading airlines the world over are equipped with fleets of Douglas DC-3s and DC-4s, designed with every modern device for the swift, safe transportation of air freight.

Soon huge Douglas DC-6Bs carrying over 10,000 pounds of cargo in addition to 58 passengers will be available. Call the air carrier nearest you for details on how to ship by air and save money. If your company uses air freight, send us your case history. And for swift, modern business travel, go by air!

DOUGLAS AIRCRAFT COMPANY, INC., SANTA MONICA, CALIFORNIA

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